

# Aviation News

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**British Post-War Airliner:** First sketch released in this country of the Miles "X," an all-metal, eight-engined design proposal by F. G. Miles, which has been submitted to the British Ministry of Aircraft Production. British Information Services reports the craft could carry 50 passengers and crew of five 3,450 miles at 350 miles an hour cruising speed. Wing span is 150 feet; length 110 feet. (Story on Page 7.)

## **CPA Engineers Reveal Preferred Transport Types**

Vast simplification program planned for post-war period expected to effect standardization of craft; sharp reduction made in engine types used. Page 38

## **February Plane Output Expected to Top 9,000 Mark**

All-time record, both in units and—more important—weight, foreseen; production of heavy bomber and fighter types stressed. . . . Page 31

## **Allied Air Blitz Cuts Nazi Fighter Production**

Assault on Axis plants reaches whirlwind proportions, entering new phase with increasing large-scale participation by U. S. heavy bombers. Page 19

## **Good Personal Plane Market Seen in Post-War Alaska**

New passenger and cargo aircraft also to be needed to supply demands of air-enthusiastic inhabitants, CAA regional manager declares. . . . Page 41

## **Airline Officials' Holdings of Company Stock Disclosed**

Some of principal officers of domestic firms listed as controlling as much as 50 percent of voting shares, according to CAB data. . . . Page 26

## **Truman Pays High Tribute to Plane Manufacturers**

Committee cites "unbelievable" progress from handful of plants a few years ago to industry making 40 percent of our war material now. . . . Page 9





## The Spring of everlasting youth

This is the spring that helps bring "blind" flyers home—sink landing aids—blast enemy planes out of the sky.

Smaller in diameter than a pencil . . . made of special bronze alloy, it never "sets", retains its tension always. Used in Westinghouse instruments, it makes possible close calibration, and keeps that calibration uniform, permanently.

Made by a special process developed by the Westinghouse Motor Division, these tiny spirals are precision-made to extremely close tolerance.

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EQUIPMENT FOR PLANE • PLANT AND PORT

## THE AVIATION NEWS

# Washington Observer

**THE AIR WAR**—Even the most conservative of officers are permitting themselves the luxury of private optimism over the results of our continuing aerial offensive against Germany. Weather plays a part in this optimism, even with our new devices which neutralize flying conditions, which heretofore kept warplanes grounded. Successive days of good flying weather will see even greater devastation visited upon the heart of Nazi Germany.

**AERIAL OFFENSIVE**—Mercury is in the making in the wings over Europe and, as Gen. Alcock commented, the attacks on German aircraft plants laid the foundation for "total and decisive operations in the future." German fighter production is being wiped out. The Germans are kept not only by day and night attacks from Britain, but also by blows from Italy. The question of whether Allied air supremacy can assure the success of a continental invasion and whether it might lead to a breakdown of German morale are not yet answered. More weeks of aerial hammering will be needed before the answer is clear, but no one can deny that the test of air power that far has yielded results which are encouraging.

**ENEMY'S DEFENSES**—There are definite indications that the enemy's defenses have been knocked. There is evidence on the other hand that vigilance is still necessary against counterattacks as was pointed up by German raids on London, would though they be compared with our aerial attacks on Germany. It may be, too, that the Germans are bombarding their air power—what they have left—for a final desperate assault on Britain or as a defense against the invasion which certainly will come. Be that as it may, the fact remains that we are able to replace our losses and that our constant pestering renders the Germans incapable of replacing theirs. The ultimate outcome is obvious.

**AIR POWER**—The perennial debate as to whether air power alone is enough to bring the enemy to his knees is running anew in the light of our terrifying aerial offensive. It should not be overlooked that when armies speak of the ultimate use of air power they mean that the enemy can be crushed to a point where his capacity to resist is destroyed, not that superior alone can "occupy and hold" territory. It should not be overlooked either, in this connection, that our air generals, for the first time since the start of

the war, have the command of sufficient men, planes and equipment to carry out an aerial offensive which will produce the results they have long attributed to concentrated and concerted air power alone.

**THE BOEING WAY**—Interesting is a day when many aircraft plants are spending millions on long, mechanized, flow-motion assembly lines, in Boeing's B-17 assembly plant in Seattle. Space utilization there exceeds that of many other plants and units are moved by conveyor toward final assembly. The large, square assembly area is



completely free from costly, and permanent awkward line mechanisms and there is indication that it might be converted at little expense to the assembly of new models—or the post-war manufacture of "other things" that Boeing intends to produce.

**BATTLE REPLACEMENTS**—The question of "battle replacements" is giving the Navy's Industrial Incentive Division some concern. While many of the Navy's prime contractors are meeting their production schedules for completed planes and ships, they are falling behind on their battle replacements quota. It has been found that some manufacturers, in their desire to meet









**COURSES COMPLETED BY TRAINING COMMAND STUDENTS**  
(as of 30 Nov. 43)

As of	1939	1940	1941	1942	1943	Total
All crew	895	1,385	7,244	28,742	56,008	94,374
Pilots		54	865	4,177	13,783	18,979
Navigators		18	340	2,740	13,998	20,096
Bombardiers				25,810	81,168	107,218
Aerial gunners			158	2,525	16,870	21,553
Miscellaneous				273,008	513,353	786,401
<b>TOTAL</b>	<b>895</b>	<b>1,449</b>	<b>8,553</b>	<b>399,235</b>	<b>697,870</b>	<b>1,048,999</b>

#### BEECHCRAFT BOMBER CREW TRAINERS

Leading formation, Beechcraft AT-10 advanced pilot trainer. Second, Beechcraft AT-7 (Navy SNB-2) navigational trainer. Third, Beechcraft AT-11 (Navy SNB-2) bombing trainer. The demands of these Beechcrafts in use by the Armed Forces have played a dominant part in the training of bomber pilots, bombardiers, and navigators and have earned their excellent reputation by faithful and efficient performance.

A magnificent accomplishment is summarized in the figures quoted above. In only two years, the Training Command of the U. S. Army Air Forces has schooled virtually the entire personnel of the world's greatest air army. Its graduates are beyond doubt the best-trained airmen in all military history. The results of their training are apparent in every news dispatch that tells of bombing missions successfully completed, and of aerial combat scores predominantly favoring our air arms. Here is the sure forecast of our Victory . . . for Victory today must be won in the skies.

*Beechcrafts are doing their part!*

# Beech Aircraft



CORPORATION

ROY D. E. WAR RODES AND STAFF WICHITA, KANSAS, U. S. A.

AVIATION NEWS • March 8, 1944

## Data on 8-Engined Airliner Released by British Authorities

Miles "X," 55-passenger aircraft, powered by Rolls-Royce motors producing 14,000-hp. at 425 mph., is expected to carry payload of 16,430 pounds, range 3,650 miles.

British Information Services last week released sketches of the Miles "X," another proposed peacetime commercial airliner to compete with American transports.

The eight-engined 55-place craft would utilize Rolls-Royce engines producing 14,000 hp. at 425 mph. at 16,990 feet, or, on a weak mixture, 10,000 hp. at 350 mph. at 16,000 feet.

Disposable load is set at 62,550 pounds, with a payload of 16,430 pounds for a range of 3,650 miles. Payload at 2,100-mile range would be 32,650 pounds and at 1,000 miles it would be about 47,800 pounds.

Phoebe Model Eleven-A, a sole model already has been flown, the British Information Services stated,

but no other details were made available.

In January, Lord Beverbrook described plans for another post transport, the Dreamer, with total weight of more than 168,000, speed of 380 mph., and capacity for 50 passengers and two tons of mail. It was claimed that a prototype was on order, although design work was not completed.

► **32-Ton Plane**—A third commercial design named the Twelve, would weigh about 32 tons loaded, cruise at 330 mph., and would carry only twelve trans-Atlantic passengers.

The Arne York, a civil version of the Lancaster bomber, is already reported in general operation.

## Philadelphia Probe

Civil Aeronautics Board has ordered an investigation of the situation at Philadelphia Municipal Airport, where it suspended service last December because of special hazards created in the airport vicinity by extended military activity.

The investigation will seek to determine whether the hazards no longer exist or procedures have been worked out for the airport's use in view of the special conditions, and whether the December order should be revoked.

## Anglo-U.S. Talks On Air Policy Near

After many dead ramers, negotiation with the British on international aviation policy is about to begin. Months ago, the Senate Commerce Committee asked the



Sectioned perspective view of the Miles "X," proposed British airliner





Interior views of Miles "X". Above, left, shows pilot's cockpit, with navigator on left and wireless operator on right. Other sketch shows galley and engineer's station of projected eight-eyed airliner.

administrations to cease further designs ahead until a complete understanding could be reached here at home.

Meanwhile the Interdepartmental Committee on Transnational Aviation, of which Adolf Berle, Assistant Secretary of State, is chairman, produced a report to the President on recommended United States Policy. This report has not been thrown out, as some observers believe. It simply was not signed by the ICIA members. The object was to avoid putting on paper any commitments among which foreign parties could be by their strategy.

**Green Light**—The Senate Committee now has heard most of the opinion and evidence and seems to have given the State Dept. the green light. This does not mean the Senate will retire from the picture, actually it will have the final say when it passes upon whatever treaty the Administration may make. Lord Beveridge, who will talk for Britain and who is often erroneously reported as hostile to Washington is really expected soon now.

One of Washington's best-kept secrets has been ICIA's report on its opinion. State Dept. laid down the line that basic trading cannot succeed if the traders knew all about the nation in advance. But American people of necessity saw the report, several publishers knew what was in it during recent months and one, from Washington, published a fairly accurate outline of it.

Both the British and the United States are determined to cover the earth with airlines, both regard aviation as a major element of their future world relations.

## Four Plants Affected By Cut in Trainers

Fairchild, Aeronca sales and two Convair factories curtail output

Four aircraft plants have felt directly the curtailment of the training plane production schedule with the termination of contracts by the Army.

Primary contractors affected by the order are Consolidated-Vultair at Nashville, Tenn., and Doves, Calif., Aeronca Aircraft Corp., Middletown, Ohio, and Fairchild Aircraft Division at Hagerstown, Md. This does not mean that these plants will be idle, but simply that more workpieces and materials will be available for the manufacture of combat planes and components.

**Training Needs Met**—The need of the Army Air Forces for training planes on the vast scale of the past two years has now been met, and the cancellations are part of a gradual conversion of production to most needed types. A quantity of incomplete fabricated parts at the plants will be utilized as spares in maintaining trainer aircraft which at one time constituted nearly 60 percent of the aircraft production program.

Possibility of contract termination had been foreseen for some time by the manufacturers, since there has been a gradual decrease in number of training planes for several months as the emphasis has moved to combat types and the emphasis on numbers of planes produced has shifted to weight.

**No Layoffs Expected**—At Hagerstown, Richard S. Bonfield, Fairchild vice-president and general

manager, said "We anticipate an appreciable change in the number of workers here and look forward to the opportunity to equal our trainer production performance on other projects which have been under way for some time."

The situation at other plants involved was understood to be similar to that at Fairchild. There were no indications of the number of workers affected in the four plants.

## Martin Speeds Up Assembly Line

Halves time on final leg with new chain conveyor system

A new automatic chain conveyor system installed in the horseshoe curve of the final assembly line for B-36 Bomardiers at Glenn L. Martin Co., has cut in half the time required to move the line and reduced from 88 to 6 the number of men required for the operation.

The former operation was a combination use of manual and tractor. The eight ships awaiting completion were moved by tractor, with two men in the crew. The other nine ships were moved manually by crews of seven men each.

**Chain Conveyor Installed**—Driven by the new set-up, a 3,250-foot conveyor chain, consisting of 1,160 solid and 1,090 split links, was installed in a channel several inches into the floor of final assembly. Powered by a 15-hp motor, it pulls 325 tons of Bomardier and dollies and other equipment 60 feet in three minutes. The dolly ride along a steel track under the Bomardier nose wheel.

# Truman Report Pays High Tribute To U. S. Plane Manufacturers

Commerce cites "unbelievable" progress of industry from handful of plants a few years ago to one now producing 40 percent of American war material.

By SCOTT HERSHLEY

There probably is no Congressional agency that has scrutinized the aircraft industry more closely than the Senate Investigating Committee headed by Sen. Truman and consequently, the Committee's comment on its third annual report that the aircraft industry as a whole deserves commendation for progress made in the production of military aircraft assumes more than ordinary importance.

The Committee report adds that "it would have been almost impossible to believe at the beginning of our defense program that an industry which then included only a handful of small and medium-sized companies would be scheduled in 1948 to produce almost 40 percent of our total war material."

**Large Small Plants**—The original aircraft manufacturers, of course, have been tremendously expanded and manufacturers from other fields have been brought into aircraft both as subcontractors and producers of complete airplanes. These, too, the committee notes "in recent years have produced successfully."

The report takes notice of the thousands of plants which are manufacturing aircraft parts and components, mostly with private capital, and says great credit is due them because most of these manufacturers only a small part of the completed airplane. Their work tends to go unnoticed. But without them, and their excellent production records, as the committee points out, it would have been impossible to have had a successful aircraft program.

**Free Red Spots**—The Committee criticized the inquiries it has made in connection with aircraft manufacturing and comments that in any program which is as large there are certain to be some bad spots. "The Committee has investigated and called attention to some of these in the past," the report says. "That it will undoubtedly do so in the future should not be allowed to detract from the record of the industry as a whole."

It is considered especially significant that the Truman Committee would comment thusly in view of some of the unfortunate pub-

licity for the industry which has resulted from some of their investigations.

**Stimulation**—Senator Truman and his committee members do not overlook the fact that the industry is now producing at the rate of more than 100,000 airplanes a year and that the ratio of combat planes to trainers and of superior planes to less desirable ones is steadily increasing. The report notes, too, the program being made toward the stabilization of our production on our best types which "in practically all cases, are equal or superior to anything produced elsewhere."

"The ability of our aircraft to take punishment has been demonstrated on countless occasions," the report says.

Brief comment is added that improvement has been made in efficient utilization of manpower, although the committee says further attention on that subject is required.

**Leads Plane Industry**—"On the whole," the report adds, "the Committee believes that the aircraft industry should be commended and that it should continue to make every effort in the future to maintain our fighting forces as furnished with all the planes they need of the best quality that it is possible to produce."

A part of the aircraft section is devoted to a list of our Army and Navy combat craft with brief descriptions which contain little new information.

In connection with naval air-



## AWPC ENGINEERS CONFER

Leading West Coast aircraft engineers met in Los Angeles recently as members of the engineering committee of Aircraft War Production Council, Inc. Identified clockwise around the table are: John W. Cresser, standards engineer, Boeing, (foreground); W. M. Wallace, Staff engineer, Lockheed; B. C. DeLozier, staff engineer, Douglas; N. S. Hanson, assistant chief engineer, North American; C. L. Roan, chief stress engineer, Northrop; M. E. Dutton, engineering manager, Northrop; M. E. Olivas, executive consultant, Douglas; A. E. Raymond, vice-president, engineering, Douglas; B. T. Salmon, chief engineer, Ryan, and, standing, James L. Straight and Roger J. Dandewee, AWPC staff members.



craft, the report gives special attention to Grumman and says "the Committee believes that the Grumman Aircraft and Engineering Corp. deserves special commendation because of the splendid work it has done for the naval aircraft program, both in designing superior planes and in obtaining large production."

**Folding Wings**—"The new type of folding wing developed by Grumman has greatly increased the number of planes that can be carried by, and consequently the striking power of, a limited number of aircraft carriers."

As has been noted, the manufacture of four-engine aircraft built for use as patrol bombers will be discontinued and the few remaining to be produced will be modified as cargo airplanes. In the future, the Navy's four-engine patrol bomber will be a land-based plane, the PB4V, to be built by Consolidated Vultee.

**Transport**—"On the question of cargo and transport aircraft, the Committee report says one of the most substantial contributions the United States has made in the field of aircraft was accomplished by providing thousands of cargo and transport aircraft which have flown millions of tons miles of cargo."

The report notes that there were forward-thinking officers in both the Army and Navy who realized that a substantial contribution could be made by cargo with trans-

port planes "although naturally even they could not foresee the full measure of that contribution. It involved too many impossibilities, for aerial operations were to be undertaken on a scale many times greater than our present airlines and ever anticipated, the burden of establishing and maintaining the service would have exceeded the benefits to be obtained from it."

In the field of cargo and transport production, the Committee says "the greatest credit must go to Douglas Aircraft Co. and its DC-3 plane (Army C-47 and C-53) popularly known as the 'workhorse of the air.'" This plane does not possess range and cargo-carrying capacity equal to others being built today, including other planes built by Douglas, such as the C-54A designed for mass production and a proposed new super cargo plane being developed by Douglas, for it is a modified version of a comparatively old plane first produced for private airlines in 1936.

However, many thousands of these planes have been built and cargo and transport work has been done with this plane, thus with all other types of cargo and transport planes put together."

### C-W. Shifts Chiefs

A series of shifts in the top personnel of Curtiss-Wright's airplane division, effective immediately, moves Charles W. France from St. Louis, where he has been general

manager, to the post of general manager of the Buick plants.

France succeeds William Dwyer, who, according to Buickette & Wright, vice-president in charge of the division, will take over new duties with the Curtiss-Wright Corp. at the end of a two-month leave of absence.

**Succeeded by Witherspoon**—Barion H. Witherspoon, who has been executive assistant to Wright, with headquarters in Buickette, succeeds France in St. Louis. William E. Nicky, formerly assistant to France in St. Louis, has been given the title of assistant general manager of the St. Louis plant.

### ATS Chief Urges Long Range Program

Combs links post-war aviation future to Pilot Training Program.

Aircraft production in West Coast plants inevitably is linked in the post-war era with the nation's Pilot Training Program and support of a long-range, adequate training program must be insured if plane plants are to escape the shadow of nearly complete shutdown, J. Wendell Combs, president of Aero-Engine Training Board, told representatives of 16 army contract flying training schools in California and Arizona.

Pointing out that military pilots become obsolete at about the same rate as military aircraft, he said flyers would have to be retrained for post-war commercial aviation.

**Safety Record**—"America's future security and future production of aircraft are directly limited by the number of pilots able to fly the latest types of aircraft that come off the assembly line," he said.

Combs also told the school operators the latest safety figures of the 40 ATS schools training Army, Air Force cadets and United Nations pilots. The fatal accident rate in primary training is only one for every 44,018 hours flown. On the basis of 100 miles per hour, that is only one per 4,401,800 miles. He said one of the schools has flown over 379,000 hours without a fatality.

Progress of the war indicates a sharpening in the pace of cadet training, but Combs said he thought the training program would continue on a replacement basis. Thirteen of the 40 schools have been placed by the AAF on a standby basis between now and June 30.

### Over 5,000 Planes Sent Reds in 1943

More than 3,000 of total received in Russia reported from all the way.

More than 3,000 American airplanes were sent to Russia last year under lend-lease, twice as many as in 1942 and over 3,000 were second all the way.

Lee Crowley, foreign economic administrator, in reporting on the aid given the Red Army, said virtually all planes sent to the Soviet Union have been combat types and last year they were principally Bell P-38 Alexander fighters, Douglas A-20 attack bombers and North American's B-25 Mitchell medium bombers.

The report said the United States has contributed a total of 7,666 planes to Russia.

### New Prop-Testing Stand Developed

Designed for calibrating and adjusting all Curtiss Electric prop governors.

A new test stand for Curtiss Electric propeller governors that provides fixed-rotation vibration on the governor being tested has been developed by engineers at Argonne Manufacturing & Supply Corp., manufacturing division.

The unit is designed for testing, calibrating and adjusting all Curtiss Electric propeller governors and featured in the stand are automatic control unit which allows the governor under test to control the speed of the driving shaft—a selector switch on the instrument panel enabling the operator to choose automatic or manual operation—two lamps to indicate opening and closing of the test, and two rpm governor controls during operation, and service lamp to indicate any increased current in the governor.

### Study Consolidation Of Army, Navy, AAF

There are renewed indications that a consolidation of Army, Navy and Air into one Department of War is again receiving the favorable attention of the Chiefs of Staff, a step-up which would provide for a general staff which would func-



### MOBILE TRAINING UNITS

Flight and ground crews at AAF bases now receive supplementary aid from elaborate mobile training units. Douglas officials report units have been built around central mechanical parts of their own planes P-27, P-38, P-40, P-47, P-51, A-20, B-25, B-26, B-17, C-47, C-54 and C-54. A mobile training unit for the Boeing Superfortresses, B-29, is being assembled. In the latest Douglas unit, shown here, all functional elements of a C-54 are contained in displays carried in two truck-towed trailers, identified as Mobile Training Unit No. 68 of the Army Air Forces Western Technical Training Command. The C-54 unit is accompanied by an instruction accessible. Douglas also has developed a panel-mounted C-54 instructor unit for transportation to overseas bases aboard C-47 transports.



tion under a single chief of staff, with equal rank for Army, Navy, Air and Supply.

Although such a proposal has been widely discussed in Washington for some time and the ultimate establishment of a unified air force foreseen by Aviation News some months ago, a copyright story in the Washington Post once more brought the whole question out into public notice.

**Program**—The plan, as outlined,

provides that all land-based planes function under a single air command but that the Navy control all carrier-based planes.

The single department would have a civilian head with civilian assistants for each service, a single chief of staff with the proper department and the general staff would be divided into two parts, Operations and Materials. Under each would be sections handling the special branches—Army, Navy and Air.



### BOEING DEVICE AIDS DRAFTSMEN

With the "grid machine," the invention of Luke L. Pierce, chief of the master layout unit, two Boeing Aircraft Co. draftsmen are able to do in one day more and better work than they could do previously in half a year. The device's grid system works with mechanical accuracy and speed necessary for accurate drawing of designs on the painted surfaces of steel covers carrying master layout drawings.



# WPB Emerges With Major Role In Industrial Demobilization Plan

Appendix to Baruch-Henrook report reveals Board's place in post-war reconversion program as that of powerful unit instead of third-rate agency depicted in original draft.

The part to be played by the War Production Board in the demobilization of industry was pretty clearly defined last week by Bernard M. Baruch and John Henrook in an appendix appearing in printed copies of their report on war and post-war adjustment policies. The report was released several weeks ago but the appendix did not appear on the original copies.

According to the two White House planners, WPB will not be the third-rate agency which many persons suspected upon reading the original report. In discussing broad policy questions, Baruch and Henrook gave WPB some political opinions to perform but little or no policy voice. However, in their later delineation of WPB's role in the reconversion picture, the agency seems to emerge as a relatively powerful unit and use that may have considerable control over all the transition problems facing the aircraft industry in the shift from war to peacetime production.

**WPB's Job.**—This is WPB's job, as described by Baruch and Henrook:

• To keep the programs of produc-

tion for war and civilians in constant balance.

• To lay down the policies to guide the choices for meeting contracts of war goods no longer needed.

• To work with the armed services and other procurement agencies and with the War Manpower Commission and other civilian agencies in making the actual choices of which products are to be canceled and which left in war production.

• To guide the shifting of contracts to make use of facilities or manpower freed from war production.

• To decide what civilian production and employment is to be resumed as war needs slacken.

• To work with the surplus administrator and armed services on the disposal of surplus government property so as to stimulate both war production and resumption of civilian employment.

• To keep all war controls under constant review so that they can be promptly modified.

• To review worthwhile local projects, deferred during the war, and which may be cleared as war needs slacken.

This definition of WPB's job in reconversion supplies the missing chip in the Baruch plan and it is now possible to intelligently more or less precisely how a given aircraft manufacturer will be handled during the reconversion period. If the Baruch plan is not superseded by legislation which would radically change the present policy, that is the outline of events which would set the aircraft manufacturer out of war work.

As the military situation shifts, the production of certain types of aircraft and aircraft materials is cut. Although over-all aircraft production is set at peak levels, many minor adjustments already have taken place and with the defeat of Germany, major cuts would come.

After WPB and the armed services have decided what cuts are to be made, they will then determine which aircraft manufacturers are to be canceled out and which will be left in production.

On all aircraft contracts terminated, the government will owe the manufacturers money. It will be necessary to determine what the government owes and to pay manufacturers promptly so they will have ready working capital with which to take on new business.

This is the earliest termination settlement phase.

At the same time, these aircraft plants must be cleared prior to government-owned inventories, raw materials, equipment, and semi-finished parts, so as to make room for new equipment and new materials to start up peacetime production.

Materials, inventories, equipment and other properties owned with the permission of the government will be redistributed as far as practicable among aircraft manufacturers remaining in war work.

As aircraft plants, manpower, and materials are freed from war production, these resources will be shifted to other war work.

When war needs are satisfied, these resources of manpower, materials, and plants will be shifted to production and employment for civilians.

As war needs slacken, wartime controls on aircraft production and production of aircraft components will be modified or removed.

Some of these steps will be carried on concurrently, while others will take place in sequence, but, regardless of the order in which they will occur, this is unquestionably the picture of the future.

## FEDERAL DIGEST

### Time-and-Half Pay At Wright Allowed

Summary of week's activities in U. S. and war agencies.

By MARY PAULINE FERRY

Wright Aeronautical Corp. was authorized by National War Labor Board to pay time and a half for work on the sixth day of the work week to employees at the Lockland, Ohio, plant. About 58,000 production workers are affected.

Dec. 14, the Board directed the company and the union to negotiate on reduction of labor grades in the plant from 26 to 13, and to establish the most progressive schedule as in the Peabody, N. J., plant, except that the overall length of the schedule was set at 36 months.

**War Production Board** restricted manufacture of lighting equipment for aircraft to equipment certified by the Aeronautical Board, the AAF, the Navy Bureau of Aeronautics or the Civil Aeronautics Administration.

The action, effective April 15, 1944, will standardize and simplify lighting equipment and eliminate outstanding and obsolete items, except as needed for maintenance and repair of existing craft. Maximum interchangeability of parts and equipment for military and civil aircraft will also result.

**Equipment Tables.**—A table of acceptable aircraft lighting equipment accompanies the order as an informational supplement. It was issued by the direction of the industry, WPB said.

Subcontractors may procure public address system sound equipment under: WPB has announced a limited number of available for industrial plants engaged in essential war work.

C. E. Wilson has named a WPB order defining all authority for control of all aircraft inventory to the director of the Aircraft Resources Control Office or such persons as the director may designate in writing. The order reads that no person may sell, trade give or otherwise transfer any aircraft materials of the type listed on an attached schedule except in accordance with regulations issued by AIBCD.

**Board Membership.**—Personnel of the new War Contracts Price Adjustment Board, created by the re-



MARINER MAKES DRY LANDING:

The Navy pilot of this Martin PB4M-3 Mariner set the flying boat down on dry land. It was during a night operation when the weather had closed in and visibility was zero miles. He "felt" the fully loaded 24-ton patrol bomber down onto what he thought was the channel between two mud bars. He called for landing and back through the interphone came, "Zero, zero, six." The service crew, the next day, arriving with full crash equipment, discovered all they needed was shovels, strong backs and a couple of paint brushes. Not even a rivet popped.

negotiation action of the Revenue Act of 1943, include representatives from: War Dept., Navy Dept., Maritime Commission, War Shipping Administration, Treasury Dept., Reconstruction Finance Corp., War Production Board. The first meeting of the Board was held Feb. 26.

All led actively as negotiations in led in the War Contracts Board which, among other things, has responsibility for fixing prices, proposals, interpretations and procedures.

**Defense Plant Corp.** increased its contract with Lockheed Aircraft Corp. by approximately \$154,000 for additional facilities at a plant in Burbank. Over-all commitment is now about \$1,344,000.

An added \$675,000 in DPC's contract with Briggs Manufacturing Co. brings total commitment to approximately \$2,019,000. The in-

crease was for additional plant facilities in Detroit.

**National Labor Relations Board** ordered an election for Bell Aircraft Corp., Buffalo, military aircraft guards for or against UAW-CIO. Two workers and assistants of Aluminized Fastings, Inc., Erie, Pa., will vote for or against this same union.

During the week, certifications were made at the following plants: Eclipse Aviation, Pioneer Instrument Division, Bendix Aviation Corp., for Aircraft Workers Union of N. J., Inc.; General Motors Corp., Detroit; Transmission Division, General Motors Corp., Fisher Body-Fleetwood, and Willys-Overland Motors, Inc., Toledo, all for UAW-CIO.

**War Department** announced award of a contract for construction of runways, taxiways and apron expansion at Matagorda



BUILDING A BASE AT ADAK:

Type of airport construction equipment used by Mary Seabee in the northern Pacific is shown in this photo taken shortly after work started at Adak, Alaska, months ago, while tents served as shelter.





#### LATEST FIRE FIGHTING SUITS

These two firefighters, shown on duty aboard a Navy carrier while planes are landing and taking off, are garbed in the latest efficient fire-fighting suits in use. Firefighters are always ready to rush to any place which smokes and burns.

Island, Tex., to amount to \$986,100. Another contract has been let for construction of parking apron and landing field expansion at March Field, Riverside, Calif., for \$739,320.

In addition, the War Dept has let contracts for \$1,585,000 improvements at AAF bases. **Office of Civilian Defense** will present the National Security Award to Consolidated-Vulcan Aircraft Corp., San Diego, Mar. 18. Six establishments will be given the award for superior plant protection and security organizations.

#### Hothouse Tests Air Photo Equipment

Testing of aircraft equipment in "cold" chambers of various types is now more or less routine, but now comes a "hothouse" developed to combat frost and overexposure of photographic equipment to be used in the tropics and near the sea.

Development of a "hothouse" was announced by Fairchild Camera and Instrument Corp., one of the principal suppliers of aerial cameras to the armed services. The hothouse, or room, is built off the ground and airtight.

much less spectacular than is generally anticipated, with very keen competition in the field.

The report noted that because of limited horsepower and because the company's earnings have been directed toward government orders, the Experimental Department has been unable to devote much time to the development of new models.

**New Plane Developed**—However, during the year, the company designed and constructed a low-wing monoplane with landing gear retractable into plywood wings (described in a previous issue of *Aviation News*) which has been well received by those who have seen it or flown it.

During production of the L-4, Piper has been constantly making changes and will be able to present an improved trainer immediately after completion of contracts, whatever new material is released by civilian use.

**Post-War Aviation**—Turning to post-war aviation, the report emphasizes that regardless of how it evolves, low-wing, retractable-gear planes may be, they will never reach any magnitude without suitable facilities, a theme which has been propounded by other authorities.

Until recently, as the report points out, emphasis in the United States has been on large air terminals, for the cost of one of which hundreds of small airports could be built. Little has been said about the need for landing strips, small airports, emergency fields, and servicing outlets until of late, but private flying will expand only as fast as small airports are constructed adjacent to highways and towns.

**Renegotiation**—The report disclosed that renegotiation of war contracts for the fiscal year ended Sept. 30, last, was concluded by assessment of a gross refund of \$486,800 resulting in a net refund to the United States Treasury of \$26,508 after credit for income taxes.

Results to be anticipated from renegotiation for the fiscal year, the report says, are uncertain and accordingly it is not possible to give the shareholders an accurate picture of the net profit.

In preparing the financial statement, the company's auditors included an allowance for renegotiation based on the results of renegotiation for the prior fiscal year and \$368,000 has been set aside as a reserve for net refund to the United States Treasury.

**TV-Loss Negotiated**—In May, 1943, the company entered into an

agreement on a Volcan with a group of banks headed by Manufacturers Trust Co., of New York, providing for a revolving credit not to exceed \$5,000,000 at any time. During the fiscal year 1943, the company spent approximately \$100,000 in new building additions which house a portion of the crating, warehouse, receiving stockrooms, tubing and metal fitting departments.

#### Douglas to Refund \$12,000,000 to U.S.

Douglas Aircraft Co. reports a renegotiation agreement has been reached with the government on 1943 earnings under which the company will refund \$12,000,000. The U. S. House of Representatives, and 1942 earnings after adjustment, amounted to a profit of 1.7 percent on billings of \$94,281,935. After federal income tax adjustment, the settlement made reduced net income for the previous ended Nov. 30, 1943, by \$3,555,000. Net income after adjustment was \$1,354,613, equal to \$14.25 a share compared with \$18.43 a share reported before renegotiation.

#### New 'Skin' Developed As Prop De-Icer

A new electrically heated propeller "skin," made in part of a special conductive synthetic rubber that enables the propeller surface to warm has been developed by the B. F. Goodrich Co., in conjunction with the National Advisory Committee for Aeronautics. The new heated propeller, designed to combat formation of ice in new, hallowing tests, being installed on planes destined for icy regions operations. The "skin" is made of a combination of two kinds of synthetic rubber, the outer surface being a thin coating made to conduct electricity instead of blocking air flow.

**Current from Generator**—Since the current comes from a generator attached to the shaft, the propeller can be kept warm and ice-free as long as the engine is running. When there is no danger of icing, no current is passed through the skin and it simply rides the propeller, oriented permanently in place and conforming exactly to its shape so as not to interfere with aerodynamic design or performance.

#### Controllable Pitch Prop Tested For Use on Small Plane Motors

Aeroproducts Division, General Motors, conducting experiments on light model attached to 450-hp. engine on trainer.

While most spectacular work in airplane propeller development is going on in the direction of bigger diameters and more blade sets to accommodate higher horsepower supplied by giant new aircraft engines, at least one of the principal propeller manufacturers, Aeroproducts Division, General Motors Corp., at Dayton, is doing some interesting experimental work on propellers for smaller engines.

Working on an Army experimental contract, the Dayton manufacturer already has made flight tests on a small controllable pitch propeller mated to a 450-hp engine on an Army trainer, but is the manufacturer for the tests.

**Plane's Gear Shift**—Advantages of controllable propellers on Army trainers, and on possibly even the small Grumman-type biplane planes are obvious. Pitch control serves such as the gear shift on an automobile, enabling the pilot to use full engine rpm for takeoff, with a low blade pitch, and to increase his blade and throttle down the engine for cruising, once he has attained the level at which he wishes to fly.

Pitch control gives greatly improved performance on any airplane, other factors being equal so that the small Army planes would have improved takeoff and flight characteristics, instead of having to use fixed pitch propellers, at a compromise pitch, which gives neither maximum efficiency for takeoff nor for continuous operation.

**Hollow Steel Blades**—The experimental two-blade propeller, which have been set down, are fitted with hollow ribbed steel blades, copper bonded, similar to those mounted in the hubs of the large production propellers made by Aeroproducts, but the engineers are studying other materials, and do not expect necessarily to be limited to steel for the small prop. Advantages of the hollow-steel blade in weight-strength ratio are limited as the size of the blade diameters and thus may be a determining factor in selection of some other material for the small or propellers.

The four-year-old firm, which climbed rapidly into major league competition in the propeller industry on the strength of its new simplified hydraulic propeller design, makes three- and four-blade propellers for Army fighters and is now in production on a six-blade dual rotation propeller for use on a plane not yet announced.

**Adaptable to Fighters**—The six-



CATALINA'S IMPROVED GUN BLISTER

Gunners in Consolidated Vultee Catalinas (PRY-5, nicknamed the Dumbo in the Southwest Pacific) have been photographed rarely in recent years. This new photo shows the plane's improved gun blister.



gle-rotational propeller is particularly adaptable to fighters of the Bell Aircraft type, because of the absence of any operating mechanism in the center of the hub, permitting the mounting of a cannon through the propeller shaft. The hollow shaft design also is adaptable to dual rotation with only minor changes.

Basically, the AeroProducts design includes two assemblies, a one-piece forged alloy steel hub in which the blades and their pitch-change mechanisms are mounted and a regulator containing the oil reservoir, pump and governor. Pitch change is accomplished by a torque unit mounted in the hub barrel and extending up into the hollow shaft of each blade. Actually, this unit is a piston fitted with internal and external spines. These are mounted between an external spine fixed to the hub and an internally spined cylinder connected directly to the blade shaft. When hydraulic pressure is applied to either side of the piston the resulting axial motion changes the blade pitch through the spine arrangement.

**Maximum Operating Speed**—From the oil reservoir is the regulator, the hydraulic fluid is pumped under high pressure to the governor, which directs it to the side of the pitch control piston

necessary in order to maintain constant engine speed. The governor is actuated by centrifugal force balanced by a spring load. The spring load in turn may be controlled by the pilot to select the desired operating speed, which then is automatically maintained by the propeller.

Besides the studies in dual-rotation and small blades, AeroProducts is doing research on reversible pitch and full-feathering propellers, as well as seeking to step up still further the speed of the pitch change, in line with advanced thinking of many leading propeller experts (AVIATION NEWS 1/31/44, page 11).

**Commercial Use**—Asked about post-war possibilities of the small blades, AeroProducts representatives admitted they had not had time to study commercial applications of the blades because of their military commitments and declined to make any estimate of possible costs.

It is apparent, however to any aviation observer, that expensive small controllable pitch propellers could have far-reaching effect in improvement of small commercial and private airplanes, giving the same improvement in performance that it would give to Army trainers and Grasshoppers, which are basically not unlike many of our private

planes, from which they were developed.

**Cool Parties**—Costs would be the main limiting factor, and these would be determined largely by complexity of pitch change mechanism, materials used, and most of all, the amount of quantity production achieved. Private plane manufacturers generally are seeking to get the costs of their post-war planes down to a figure near that of an expensive automobile, and this leaves them only a limited budget for propellers. If they can buy a propeller with quick control and stay within their budget, they can offer a vastly improved airplane.

## United Air Lines Adds Two Officers

United Air Lines has announced election by its Board of Directors of Curtis Barker as controller and Carroll H. Blincher as auditor. William A. Patterson, president, and the two new officers were created in view of United's growth and the "increasing complexity of its activities."

N. R. Blakey will continue as treasurer, supervising collection and disbursement of funds. Barker will have charge of accounting functions and Blincher of internal auditing. The three will report to John W. Newey, vice president in charge of finance.

**Veteran**—Barker is one of United's oldest employees in point of service. He joined National Air Transport as assistant treasurer in 1934, and continued in that post when NAT became part of United. Blincher, a University of Wisconsin graduate, joined United last November. He was last auditor of Commonwealth Edison Co. for six years and was with Arthur Andersen & Co. for four.

## Aerial Survey Made Of Latin America

Inter-American aviation will benefit by a survey being conducted to provide accurate, uniform coordinated maps of all countries of the hemisphere.

The work is described by Robert R. Randall, chief examiner of surveying and mapping in the Budget Bureau, in the current Geographic Review, organ of the American Geographic Society of New York.



## HE'S SHOOTING HOLES IN A HOSE ... TO HELP BRING OUR FIGHTERS HOME!

It's a mighty important hose he's shooting at, and he'd better score plenty of hits. For this hose is the vital link between an airplane's fuel tanks and its engines . . . a link whose failure due to punctures could mean the loss of plane and crew. That's why he wants his .50 calibre bullet to hit and hot again . . . to see if the hose can take it. And it can! This newest type of B. F. Goodrich Bullet-Sealing Fuel Hose has stood up on the range and in combat. Time and again it has been hit by 30's and 50's without leakage. Actual cases are on record where good-nosed shell fragments have been found imbedded in the fuel hose of planes safely back from battle.

From B. F. Goodrich has been making efficient bullet-sealing fuel hoses since 1941 . . . keeping ahead of constantly changing performance requirements. Our research men have met the challenge of a hose that would hold it at sub-zero temperatures.

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constructions were made up and tested before today's efficient hose was produced. And even now, B. F. Goodrich engineers continue their research, looking for still greater sealing efficiency . . . will greater protection for our combat flyers.

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**FIRST IN RUBBER**

Approved by 3 pilots

MAKERS OF MORE THAN 80 RUBBER AND SYNTHETIC RUBBER AVIATION PRODUCTS

AVIATION NEWS • March 5, 1946



## CORONADO'S SIDE GUNNERS:

Arrangement of the side gunners' hatch in the Navy's four-engine PB3Y-2 patrol boat, the Coronado, is shown in this new photo released by Hill & Knowlton. A divided window of Coronado was built by Consolidated Vultee's West Coast plant last year.





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**CARBURETORS, PUMPS AND  
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CHANDLER-EVANS CORPORATION — SOUTH MERIDEN, CONNECTICUT

## THE AIR WAR

### COMMENTARY

## Nazi Plane Output Drops Sharply Under Weight of Allied Air Blitz

Assault on Axis fighter plants reaches whirlwind proportions, entering new phase with increasing large-scale participation by American heavy bombers.

This is it. Twenty-one months ago General Henry H. Arnold was in London completing arrangements with General Spalte and Commander of the Eighth Air Force and Air Chief Marshal Portal and Air Marshal Harris of the RAF for the forthcoming American participation in air operations over Europe. Before leaving London, he stated: "My war has, I hope, tapered the time when our air arms shall join in an air offensive against the enemy which he cannot meet, defeat or survive." A few days before, by a large effort on coordination, the RAF Bomber Command had demonstrated the possibility of sending 1,000 bombers against Nazi industrial cities in overwhelming night attacks by carrying out such missions against Essen and Cologne.

Earlier in his statement General Arnold intimated the scope of the joint air offensive which would be possible when full strength had been built up in both commands. He said there was every reason to believe 1,000-bomber attacks could be made several nights per week, dropping between 2,000 and 3,000 tons of bombs on vital industrial cities, and that similar assaults of American heavy bombers could be sent on precision daylight missions against several key targets at one time. This strategy was confirmed at Casablanca a few months later by the combined chiefs of staff.

**Plan in Action**—The RAF part of the combined program went into effect last spring with the opening of the "battle of the Ruhr," virtually completed by late fall with more than a dozen of the chief Ruhr valley cities knocked out of the war potential. Many other such cities remain in other parts of the Reich, and the RAF Bomber Command continues to knock them out,

"city by city." The AAF part of the program, due to the demands of the Pacific-Asian theater, the anti-submarine campaign and the Mediterranean campaign, took longer to reach the scale of the huge RAF attacks. Despite spectacular and often highly destructive individual missions during the past six or eight months, it may be reasonably stated that the effort of the Eighth Air Force entered a new phase on Jan. 11, 1945, in the shattering blows delivered against three great aircraft factories at Goerdelheim, Halberstadt and Rostock.

**Whirlwind of Destruction**—The Allied air offensive against the top priority fighter aircraft industry reached whirlwind proportions during the week of Feb. 24-26. It began with a very heavy RAF attack on Feb. 24-25 against Leipzig, a key industrial city which has sustained an even greater importance during the past few months since the destruction of much of the Ruhr heavy industry. Leipzig contains the important Kitz ME-109 assembly plant, which hitherto has not had its activities given two other principal producers of this fighter, the assembly plants at Regensburg and Wiener-Neustadt.

The week ended with the Feb. 25-26 RAF attack on the main Massachusetts (former Schweinfurt Flugzeug Werke) factory for the assembly of twin-engine rocket-firing ME-616 fighter-bombers. Other RAF night attacks include Stuttgart (Feb. 21-22), concerning important aircraft parts, engine and bombing factories and Schweinfurt and Regensburg on Thursday night (Feb. 24-25). The savage defended Leipzig facility incurred a record loss of 59 RAF heavy bombers, but the huge night attacks were right on

U. S. Strategic Air Forces—It was the American effort, however, which reached a new high during the week. On Sunday (Feb. 26), 1,646 Fortress and Liberator, escorted by another 1,000 Thunderbolts, Lightnings and Mustangs, struck heavy blows at no fewer than eight important fighter aircraft factories. These ran the gamut of the main single- and twin-engine fighter opposition now being met in the air battles over Europe, including the ME-262, the FW-190 and the JU-88 (the last is a radial-engine bomber, now taking part in the raids on London), and the ME-109 and improved 110.

The attack on the Arado FW-190 factory at Teltow was the first since the Eighth's "battle of the" as the fighter factories last summer (July 25-August 17), at which time, if the present strength of heavy bombers, crews and escorting fighters had been available, the job could have been practically completed. Without giving the Luftwaffe time to catch its breath, repeat blows on the same targets as those struck on Feb. 26, together with some new ones, were reflected by the Eighth Air Force on Feb. 25, 22, 24 and 26 (see accompanying table). Coupled with this were heavy attacks by the Fifteenth Air Force, based in Italy, on Feb. 23 to 25, completing the air picture movement from the south.

**Fifteenth Air Force**—During October, 1943, the Twelfth Air Force Bomber Command was in process



### EMERGENCY KIT:

This new BCAP bandoler personal emergency kit scores by all during personnel rescue, shaft, survival food, medical and signal aids.







# LOW BIDDER FOR TOMORROW'S *Air Traffic*

**Chicago**

**Cleveland**

**New York**

**Setting new standards for twin-engined aircraft...hauls larger payloads further—faster**

No post-war plans for commercial air operations—transport or cargo—can overlook the economic possibilities of Curtiss Constellation.

As a freight carrier, it will haul a 9-ton payload 5 miles a minute at rates which will prove highly attractive to shippers.

As a passenger transport, it will offer equally interesting possibilities for airlines, yet lose out air travel.

Today, the Curtiss Constellation is doing a profitable job in every theater of war under the toughest adverse flight conditions.

Tomorrow it will step into its own peerless leadership—a practical high-speed, low cost carrier that will revolutionize present conceptions of land-carried, time required and cost of operation. Look to the Skies, America.

Curtiss-Wright Constellation, Airplane Division, Buffalo, Colorado, St. Louis, Louisville,

Curtiss-Wright Corporation, Airplane Division, Buffalo, Columbus, St. Louis, Louisville.

**Curtiss  
Commando**

CONTRACTS MADE BY ALL NEW MEXICO  
CONSUMERS GUARANTEED BY THE COMMISSION

E. R. (Dick) Hawkins, former Allied newspaperman, has been appointed executive assistant to Vice-President Harry E. Collins, of Bell Aircraft Corp., to carry out general assignments for the Group's civilian departments. He has been connected with Bell's Negroes Frontline Division for a year.

Kay J. Swedine has been appointed sales manager of Lpcoseng division of American Corp. in Willingboro, N.J. Swedine for the past two years has been district and service engineer at the American Corp. Progress Corp., a subsidiary of American Corp. He has been working closely with Wright Tech. as an engineer.





## Clipper Pilots Rehearse World-Wide Flights in the LINK TRAINER

AVIATION of the United States are playing a vital role in the all out war effort. Pan-American alone has made more than 5000 ocean crossings since Pearl Harbor. Tremendously long hops, infrequent landings and wide weather variations put a high premium on instrument flying skill.

Keynote of the Company's routine air pilot training program is the Link Trainer. The Link's ability to simulate virtually any flying condition enables the company's pilot status crew members

to keep a sharp polish on their skill.

Approach to every port made by the Clippers is charted and landings practiced in the Link Trainer. Headquarters of Eastern, Western, Atlantic, Pacific and Alaska Divisions constantly rehearse such flights. Regular Link refresher courses are also routine procedure with Pan American-Cowair Airways, Panair do Brasil and Cia. Mexicana de Aviacion.

Because war cannot wait on weather, the Clippers are flying under conditions which would have kept them grounded in times of peace. Link is proud to contribute to Pan-American's great transport achievement in the war.

LINK AVIATION DEVICES, INC., Burlington, N. Y., New York-Link Trainers, Aviation Simulators, Collimators and other products contributing to the safety of flight.



Aviation links to Link for war effort engineering and high standards of manufacture. Link for the new 15% in aviation products eligible war.

William F. McGroden Jr., William F. Redding, and Lowell H. Swenson will constitute the national board of National Aeronautics, monthly magazine, since the resignation of Capt. Gil Bobb Wilson. The NAA also announces that S. Ralph Cohen, formerly associate editor, will be managing editor and Virginia Edwards will become an editorial assistant. Gaila Hendon leaves the staff to work with Captain Wilson.

Robert K. Oplka has been elected controller at a meeting of the Northrop Aircraft, Inc. board of directors. He was formerly with Lockheed Adult Precision Products.

W. B. Maxwell, with United Air Lines Pacific operations since 1943, has been transferred to his former position as station manager at LaGuardia Field, New York, according to an announcement of new assignments. Charles A. Stoder, who was station



Stoder

manager at LaGuardia, will return to Omaha, as station manager, now that Maxwell has returned to New York. O. W. Swenson, acting station



Swenson

manager at Omaha is being assigned as station manager at Toledo and Cyril L. Palmer has been transferred from Toledo to Youngstown as station manager there. He succeeds Earl Butler, who has been assigned to Toledo.

Frank T. Magnus has been named a vice-president of Goodyear Tire and Rubber Export Co. He was formerly an assistant manager of the export company. Magnus interrupted 25 years' service with Goodyear to join the Naval Flying Corps in the last war.

Karl O. Larson, chief engineer of Northwest Airlines, has been ap-



Larson

pointed to the new Air Transport Engineering Activity Committee of the Society of Automotive Engineers. Larson has been a member of the SAE Aircraft Activity Committee and is also a member of the Future Aircraft Requirements Committee of the Air Transport Association.

H. F. Hargrove, formerly factory superintendent at Yulter Field, Dow-

ney, Calif., has been appointed to the staff of C. A. Shupe, works manager at Consolidated Vultee's Port Worth division.

William D. Green, Jr. has been appointed contracts manager of the Dynamic Division of Fessenden-Kings and Wallace Corp. He has served with Douglas Aircraft and Lockheed Ordnance Corp.

Leont. Col. Robert D. Meier, USMC, has been transferred from headquarters to aviation duty at the Marine Corps Air Station, Santa Barbara, Calif.

William G. Wilson becomes superintendent of traffic at the Consolidated Vultee's Port Worth division. Wilson was formerly stationed at Yulter Field, Denver, Calif., and has been chairman of General's traffic managers' conference since its inception.

Leont. Grade F. S. Hodgson, USNR, retired, has been named manager of the Marine division of Sperry Gyroscope Co. The Marine division will absorb the company's Brooklyn plant.

Verle Cornwright has been appointed ticket agent in New York City for Trans-Canada Air Lines. Max Cornwright was formerly assigned ticket agent in New York.



Crew of First Continental Route 58 Flight: Left to right, O. B. "Ted" Munster, Continental Air Lines' vice-president of operations; Mildred "Tennis" Beck, chief hostess; and J. P. "Jack" Miller, chief pilot, are three officials of the airline who will cooperate on Mar. 1 the crew for the first official flight over Continental's new Route 58, between Denver and Kansas City with intermediate stops at Tulsa and Topeka.







after \$1,112,000 provision for taxes, of \$3,018,064 on net sales of \$43,307,029. Net profit for 1943 after renegotiation and \$2,500,000 tax charge was \$1,375,263 on net sales of \$31,699,282. The corporation added \$2,193,553 to its earned surplus.

**Haves Manufacturing Corp.** and subsidiary reported for year ended Sept. 30 a net profit of \$821,140, equal to 84 cents a share after provision for renegotiation, \$99,694 for development of postwar products and \$1,895,904 for taxes. Revised net profit for the previous year was \$387,386 or 67 cents a share. The report and adjustment of 1943 fiscal earnings increased net profit for that year by \$363,990 or 41 cents a share.

**A dividend** of 75 cents a share on the capital stock of Bendix Aviation Corp. has been declared, payable March 31 to stockholders of record Mar. 18.

## War Exhibit Shows Conversion Extent

Examples of widespread conversion of peacetime American industry to making military aircraft parts and equipment may be seen in the War Products Engineering exhibit opened by 50 Dayton industries, in the Engineers' club there.

The display includes Hamilton Standard propellers and aircraft machine guns made by Frigidaire division, General Motors Corp., which also is making the big four-bladed used in the new super-bomber, the B-28, Chrysler-Evans carburetors for aircraft engines, made by National Cash Register Co., bomber landing gear built by Dana Products Division, General Motors, and a wide variety of other aircraft parts and precision instruments turned out by firms which, before Pearl Harbor, knew little about aircraft components.

## Supply Contracts

Aircraft supply contracts through December amounted to \$47,712,093,000, the War Production Board reports. The aircraft category includes contracts for airframes, airplane engines, propellers and other parts and certain related equipment and shows California far ahead with contracts totaling \$1,719,213,000.

Other leading states include:

Michigan \$2,550,922,000, New York \$2,336,261,000, New Jersey \$2,289,984,000, Ohio \$1,828,213,600, Connecticut \$3,648,523,000, Indiana \$2,388,570,000, Kansas \$2,239,474,000, Washington \$1,881,863,000, Maryland \$1,818,945,000, Texas \$1,583,475,000, Illinois \$1,465,315,000, and Oklahoma \$1,064,466,000.

## Air Associates Assets \$7,350,995

Company points out possibility of revenues after renegotiation of contracts.

Total current assets of Air Associates, Inc., at the close of the fiscal year ended Sept. 30 were reported at \$7,350,995, or \$5,413,424 after including other assets. The company said renegotiation of war contracts for the fiscal year had not been stated and the possible effect of this upon its financial statement could not now be forecast.

As a result, no provision therefor was made in the financial statements and any required refund would be after credit of the amount of applicable federal income and excess profits taxes, according to the company's report to the Securities and Exchange Commission.

**Salaries Listed** — The report showed H. I. Crow, president and director of Air Associates, was paid \$44,984 during the fiscal year, of which \$18,644 represented salary. \$1,999 director's fees, \$24,423 was percentage compensation at the rate of 3 percent of the company's net profit after taxes and \$11,481 represented 1 percent of the net profits as consolidation of the remainder by Crow on Sept. 16, 1943 of options for purchase at \$5.50 a share of 9,799 common. The percentage compensation has been accorded in the books, pending approval of the Salary Stabilization Unit of the Treasury Department.

R. E. Acra, vice-president, received \$17,745 including \$5,746 percentage compensation at the rate of one-half of 1 percent of net profit after taxes, which amount is subject to approval of the Treasury unit. G. S. Klewsitzer, secretary and treasurer, was paid \$9,495.

**Stockholders** — Largest individual stockholders of the company were Gilbert Celatka, chairman of the board, with 17,445 common, representing 12.9 percent of that class and Haven B. Page, of Alexandria,

Va., with 13,990 shares or 10.3 percent of the common.

## 'Props' Salvaged At Canadian Plant

Thousands of dollars' worth of propellers actually are saved from the scrap pile and sent on their way to fly again at the propeller division of Canadian Car & Foundry Co., Ltd., Montreal, where hundreds of crippled propellers recently are sent for repair and reconditioning.

The broken props are returned from airfields throughout eastern Canada where the hub mechanism is taken apart, examined for damage and repaired and conditioned while new blades are attached.

Canadian Car & Foundry also has built a modification center at Montreal, where work is done on the Anson twin-engine trainers, which includes replacement of engines with more powerful plants.

## Ohio Bill to Ask Aviation Gas Tax

Revenue, estimated at \$153,000 a year, would be used to improve airports.

Legislation making taxes on aviation gasoline, to be used for improving Ohio airways and airports, will be presented at the next session of the Ohio legislature, according to Clevelander reports.

Ohio now has two state gasoline taxes, one a 3 cent liquid fuel tax, and the other a 3 cent motor vehicle tax for highway maintenance. Whenever the second tax is collected on gasoline used for aviation purposes, the State Department of Taxation will refund it, if claim is filed within 90 days.

**Refunds** — One basis for preliminary studies on the proposed tax, is a survey recently completed by the state department of taxation, showing the amount of refunds claimed on aviation gasoline during the last half of 1943. Refunds were granted on 3,405,367 gallons, totaling \$72,161. On the basis of this survey, it appears that approximately \$153,000 annually might be available for airport construction or improvement, from this source. Advocates of the tax believe additional revenue would be forthcoming from aviation gasoline users not now claiming refunds.





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WEIGHT SAVING =  $\frac{2}{3}X$

By removing copper oil coolers and coolant radiators from one of their famous fighters and dropping in aluminum models—without any design change—weight-conscious engineers of the U. S. Army Air Forces saved approximately 130 precious pounds.

This vital victory over weight—symbolized by  $\frac{2}{3}X$  (where X equals the weight of solid-soldered copper coolers and radiators)—was made possible by Clifford's discovery of the elusive method of brazing aluminum tubes having very thin walls.

Already battle-tested on wide-speed fighting fronts, Clifford's Feather-Weights are now being applied to another Army Air Forces' fighter. Here the potential weight-saving is approximately 300 pounds.

Less weight, greater resistance to heat and pressure, longer life—see the results when aluminum replaces copper in aircraft oil coolers and radiators.

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OIL COOLERS AND  
COOLANT RADIATORS

Save  $\frac{2}{3}$  The Weight  
... same size and shape

## AIRCRAFT PRODUCTION

### Plane Output During February Expected To Top 9,000 Mark

All-time record both in units and—more important—weight forecast; heavy bomber types stressed.

All signs point to a new record-breaking aircraft production performance in February, on the basis of unofficial estimates, with unit production as well as weight exceeding any previous month in the nation's history.

It appeared likely that unit output would be above the 9,000 mark and that weight output, the significant yardstick, would show an even greater corresponding increase over other months.

**Heavy Types Stressed.**—An indication of the figures for February may be seen in a comparison with January figures, when airplane production numbered 8,718, a figure which undoubtedly will be topped for February unless entirely unforeseen circumstances move in to reduce it. As was pointed out by WPA Chairman Donald Nelson in his most recent report, numbers no longer do justice to the progress of the aircraft program, since production is now concentrated on the larger and heavier combat types.

In terms of airframe-weight, January output was 3 percent above December—5 percent if spare parts, etc., are included.

Of more importance to the industry is the estimated output on the basis of aircraft scheduled. T. P. Wright, head of the Aircraft Resources Control Office, noted that January production beat schedule by 3 percent and he indicated that February output would be even more above schedule on a percentage basis, with increases in all classes except possibly rotary wing craft.

**Scheduling.**—Most scheduling is now done on a daily basis, Wright pointed out, utilizing working days per month instead of monthly totals as the unit of measurement of production. About 15 percent of all aircraft producers are now on that type schedule, which is more realistic than some of the others given to the industry to fill

Wright reiterated that the industry has about reached its peak in numbers, but that weight output would continue to increase, particularly as the larger and heavier craft output goes up. The West Coast aircraft manufacturers, for example, are producing more airplanes than ever before in terms of weight and the planes now being built are bigger, heavier and deadlier.

**Not Out for Records.**—While the industry has justifiable pride in the number of planes it builds, it should be emphasized that the program for airplane construction is not based on beating the record set

the month before or the year before—although the industry need make no apologies in that respect.

Basically, the aircraft builders must give the armed forces the number of types of airplanes which tactical knowledge dictates they must have for successful waging of the war. Numbers of planes are only part of the story and thus is no longer the most important or significant part of the story. It is important that the airplanes being built today are better airplanes, safer, bigger, faster, more heavily armed, capable of longer range and higher altitudes and bigger loads of bombs or ammunition.

**Costings and Bearings Problem.**—The only difficulties in the way of production at the moment, Wright said, appeared to be costings and bearings and he does not consider either of them serious at this time. There undoubtedly are manpower troubles ahead, but not critically, although there are some tight spots, particularly on the West Coast.

It should not be overlooked in considering the present manpower situation that, in addition to the fast airplanes now being turned out are better airplanes, they are being built with fewer manhours and with less cost to the Govern-



FLYING FORTRESS OUTPUT SPURTS:

Production of Boeing Flying Fortresses is constantly on the up-grade and contributed to February's record-breaking output of airplanes in weight and numbers. Pictured here are wing sections, each with one powerful Wright engine, awaiting mating with fuselage sections at Boeing's Seattle plant.



# Air Power Through Piston Rings



## McQUAY-NORRIS ALTINIZED PISTON RINGS

PISTONS...PINS...

### HARDENED AND GROUND PARTS

More and more, the leading makers of aircraft motors are using McQuay-Norris precision parts. Our 34 years' experience in precision manufacture, our long and intensive work in metallurgy, heat treating, clinical research and laboratory experiment, enable us to turn out the sturdy, dependable parts demanded by modern aviation. Your inquiries are invited.



PRECISION WORKERS IN IRON, STEEL, ALUMINUM, BRONZE, MAGNESIUM



McQUAY-NORRIS MFG. CO. (AIRCRAFT DIVISION), ST. LOUIS, U.S.A.

CANADIAN PLANT, TORONTO, ONTARIO

#### PARTS FOR AIRCRAFT ENGINES

Piston Rings  
Oil Sealing Rings  
Supercharger Rings  
Carburetor Parts  
Mechanical Aluminum

Pistons Pins  
Counterweight Chalk Pins  
Mechanical Magnesium Parts  
Cylinder Head Down Nuts  
Hardened and Ground Parts

#### PARTS FOR PROPELLER ASSEMBLY

Mechanical Magnesium Parts  
Piston Rings

#### EQUIPMENT FOR MAINTENANCE OF AIRCRAFT

Pistons for Oxygen  
Compressor  
Piston Rings for Oxygen  
Compressor  
Pin for Oxygen Compressor  
Pistons for Air Compressor  
Pins for Air Compressor  
Piston Rings for Air  
Compressor

#### LANDING GEAR PARTS

Mechanical Aluminum  
Pistons  
Piston Rings  
Hardened and Ground Parts

ment. In January, 1943, for example, it required 167 direct man-hours to produce one pound of airplane wiring (excluding sub-contracting and spares). By December, the figure had been reduced to 37 of a man-hour.

In this connection, it should be noted, too, that women constituted almost 43 percent (42,875) of the total personnel in the Pacific Coast plants in December of last year, and that most of them will be needed.

In the early months of the year 1942, relatively few women were employed in the industry. But in December of that year, women employed in Pacific Coast plants passed the 100,000 mark.

In December of 1943, there were 121,875. While the number of women employed has gone up, the number of men employed has gone down and as the armed forces call for more and more men, more women will be needed in aircraft plants to meet the accelerated schedule prompted by the eager air advances on all fronts.

## Burnelli Contract Being Negotiated

Canadian Car & Foundry expected to build transports for South American nations.

Negotiations are now under way by Canadian Car & Foundry Co., Ltd., Montreal, to build Burnelli transport planes for South American nations, although contractual details are not yet available and probably will not be for some weeks.

No dates are being released as to the number of transports involved in the projected deal, nor has Canadian Car & Foundry announced the name of the airline for which the planes are to be built. The company holds the Canadian rights to the Burnelli.

**Frank Express**—While an official confirmation could be obtained, it was considered likely that the plane involved in the Burnelli fruit express transport (AVIATION NEWS, Dec. 20) piloted by Canadian Airlines for post-war use, since there have been definite indications previously.

The fruit express, discussed before, would carry fruit in a refrigerated transport at eight cents per mile from Miami to Montreal in 14 hours according to the estimates of one official.

## Stromberg Develops New Ice-Free Unit

Carburetor units now reported produced for use in Army helicopter engines.

Suitable for small airplane engines up to 200 hp, a new series of aircraft "injection" carburetors which maintain the ice-free characteristics of the larger types that now equip most of America's combat planes has been developed by Stromberg carburetor division of Bendix Aviation Corp.

**Helicopter Model**—Frank C. Meade, director of engineering for the division, said the new, smaller series is being produced for the Army Air Forces for use in helicopter engines. He added that these carburetors, when pending basic design features, called for in Army and Navy specifications for smaller aircraft, will be ready for delivery to provide plane engine burdens after the war.

The new smaller carburetors, he declared, are single barrel units and can be adapted for use in any one of three positions—updraft, downdraft or horizontal. All models are equipped with a vacuum-operated, single diaphragm accel-

erated pump and a combination manual mixture control and cut-off. Automatic mixture control and additional power enrichment features are optional.

## List of Essential Activities Revised

A revised list of essential activities has been released by the War Relocation Authority, including many changes which have been made from time to time, but comprising the first complete list since December, 1942.

The criterion followed in determining whether or not an activity is to be included in the list touches activities directly engaged in production of war materials.

**Guides**—On the list, in No. 1 position is "Production of aircraft and parts—The production, maintenance and repair of aircraft, gliders, parachutes, dirigibles, balloons, aircraft engines, aircraft parts, pistons, and propellers."

The list serves as a general guide on which manpower programs for allocating labor to the different needs are based. It is designed primarily for use of the United States Employment Service and the Selective Service System.



## TRANSMITTERS TESTED AT 65 BELOW

Temperature tests were severe than actual flying conditions are given transmitters and radios of the remote reading magnetic compass in production at the DeWitt's Aircraft Instrument plant, Foster, Bldg. 1st division of General Motors. Weather alone is checking frozen transmitters after they have been subjected to a two hour test at 65 deg. below zero.





Today Lapointe broaches and broaching machines are producing more precision parts than previous methods of machining. Typical of these production installations are the A-1 Broaching Machines at the Springfield Arsenal that are making the apertures for Gerard rifles. Shown on the face plate of the machine above is the ring before and after spline broaching. This ring is made from a forging ground to correct thickness. It is then spline broached and each finished ring makes 8 parts. This 8-at-a-time production accounts for 2,240 component parts per hour in one single high speed operation.

**The Lapointe Machine Tool Company**

ROCKFORD, MASSACHUSETTS U.S.A.

## WPB Production Exposition Opened

Display held in capital designed to spur labor and management to meet 1946 quotas

A number of aircraft and aircraft parts manufacturers were represented at an exposition in Washington under sponsorship of the War Production Board, designed to point up labor and management teamwork for war production.

Government, military, war agency, diplomatic, industry and labor officials attended advance showings of the exposition, which is planned to tell graphically the story of sustained output, due to united attack by workers and management on production problems, and to focus attention on the necessity of achieving more production in 1944 and the part labor-management committees are playing.

**Firms Represented**—Among the companies represented were Bell Aircraft, Curtiss-Wright, Cessna, Douglas Aircraft, Glenn L. Martin Co., North American Aviation, Northrop Aircraft, Pratt and Whitney, Thompson Aircraft Products Co., Goodyear, Fairbanks, General Motors, Minneapolis - Honeywell, Packard, Walter Knabe & Co., Western Electric, Westinghouse.

### Tactical Planes

The basis for our aircraft production program rests on output of tactical planes, as was pointed out recently by T. P. Wright, head of Aircraft Resources Control Office, who was asked in a radio interview as to whether there was emphasis on fighter plane production or bombers. Mr. Wright replied as follows:

"Actually, emphasis is on tactical plane production, which includes both fighters and bombers, also cargo planes as well. We must have a balanced air force adequate in all necessary types. Although it is true that at the Army Air Forces our basic offensive program is the heavy bomber and we are rapidly increasing our output of them in both size and quantity, we also require further increases in fighters and transport planes, and we are seeking their increase in proper balance, in both the Army and the Navy."



### AERIAL PHOTOGRAPHY FROM A LIBERATOR

This new photograph, taken on one of Consolidated Vultee's high flying Liberator bombers, shows an aerial photographer at work, with latest equipment including an oxygen mask, in a plane especially equipped for this type of mission.

## Study Labor Waste in Cost-Plus Plan

Hearings open in Senate on system and charges of manpower squandering.

Hearings which opened last week on a Senate investigation of cost-plus-fixed-fee war contracts were described on Capitol Hill as being neither a witch-hunt nor a whitewash, but their effect on such contracts held in the aircraft industry cannot be determined until the hearings have progressed further.

It was noted by Washington observers, however, that Chairman Murray (D-Mont.) of a Senate subcommittee, which they were investigating complained that "an unbelievable waste of manpower and money has resulted under the cost-plus system."

**Plane Output Cited**—This is not a new complaint and in the aircraft industry, where such contracts are held, it had been generally believed that this criticism had been answered in production figures and in reduction of manpower-per-airplane-pound.

The investigation resulted from introduction by Sen. Ferguson (R-Mich.) of a bill to require investigation of present outstanding cost-

plus contracts to the fixed-price type and to prohibit further use of cost-plus contracts, except where the head of the Government contracting agency personally certified that it was necessary "because of lack of precedents of experience as to which to base fixed prices."

Ferguson's bill also would require, when cost-plus contracts are awarded or continued, that an incentive fee plan be included under which the contractor's fee would be increased as a reward for reducing production costs and increasing production volume.

### Ceramic Insulators

Three new-type spark plugs for aircraft which feature insulators made from ceramic instead of the conventional mica are now being produced for Army aircraft by Electric Auto-Lite Co.

Their engineers report the new aircraft plugs are the result of many months' experiment and development and that, under conditions of high power output, ceramic plugs of this type will last longer than mica aircraft plugs formerly used. General improvement in plug operation is gained mostly, they reported, through development of the ceramic insulator.





## CAVU

The flyers of the CAP have proved what light civilian planes can do, have written "ceiling and visibility unlimited" on their future.

In flying trips they've caused by flying home in rescue as air. They've flown critical cargo when airlines were grounded by weather. Pushing through for bombers, they've smoothed seas. They've crossed through airports through rainstorms that seemed impossible—and probably were, by your standards.

At Standard of California, too, we're lifting performance

ceilings for John Glenn's post-war aircraft. The new aviation facts and lubricants we've developed will help make possible light airplanes with far more speed and economy, airplanes to change a week-end sport to a way of living.



Standard of California fuels and lubricants for tomorrow's planes are ready now, to make the future of civilian flight CAVU—ceiling and visibility unlimited.

STANDARD OF CALIFORNIA

## Rubber Sheets Cut Plane Skin Process

Manila plane skins also in use, sharp reduction in cost under new system

Substitution of thin rubber sheeting for grease on blocks of stretching machines used to process large sheets of metal in making airplane skins at Glenn L. Martin Co., is reported to have resulted in an improvement in virtually every phase of the procedure in the detailed manufacturing department.

The process used before the 1/32-inch thick elastic "lubricant" method was adopted was a tedious and difficult one. The lubrication was necessary to complete the stretching process, but the grease made it difficult to finish other operations. Because of the time element involved, it was found impractical to treat the large sheets to the vapor bath cleaning method before they were skinned.

**Production Increases**—Frank Weaver, foreman of the stretching machine department, said that, with adoption of the rubber sheeting method, production immediately went up.

"The new plan saved production costs in a number of ways," he said. "Our total department output was increased by almost 50 percent. In addition, we saved the excess cost of the grease, which was much more expensive than the rubber sheeting, the machines and tools do not have to be cleaned each shift, and we eliminated a number of safety hazards, keep the department much cleaner and we are doing the work with fewer people."

**Old Method**—The old method involved covering blocks of the stretching machines with a thick coating of grease. After the stretching process was completed, the large sheets of metal were placed on the floor, where a second group of workers removed as much of the grease as possible with rubber scrapers and wiping cloths. The sheets were then taken to a scrubbing table where they were washed with part cutlery, to be followed by the workers when they trimmed and cut out the damaged sections.

Because these sections had a burred edge after being cut, they had to be moved to another group of workers who removed the burrs. When these operations were completed, the parts were moved into

a hot vapor bath just when the grease was removed. Then the part was numbered and, after being loaded into containers or on skids, sent to other departments for finishing operations.

## Motor Sand Blast Uses Wheat Cereal

New ASC process reported in cost cut of cleaning engine blocks from \$7.91 to \$1.

Use of a Mexican wheat cereal in a sand-blasting machine, to clean aircraft engine parts, with greater efficiency than any previous process used, is reported from the Sacramento Air Depot at the Air Service Command.

The wheat is boiled in water to remove starch, then dried and ground with steel cutters, putting sharp corners on tiny particles, providing abrasive quality which cleans carbon from the engines.

**Cut Costs Sharply**—The process has cut the cost of cleaning engine blocks from \$7.91 to \$1, while pistons are now cleaned at a twelve cent cost against \$1.30 under the old screw-driver-and-sand method.

In blasting the wheat particles, about 60 pounds of air pressure is used, about half the pressure used in ordinary sand-blasting of spark plugs and similar motor parts.



"VEST POCKET" TRAINER:

A mass of cogs, cuses and rods that took three months to design and assemble constitutes the frame of this Southwest Aviation flight trainer with the operation of a tiny stick and rudder pedals directly beneath the feet. Flight instructor Carl H. George of Southwest's Falcon Field at Mesa, Ariz., awarded the instrument to give students "ground flaps" that will prevent critical errors in flight.

## Boeing Scales Used To Check B-17's C.G.

Balances developed by company now employed throughout industry to weigh aircraft.

Scales designed by Boeing engineers have become widely used in the aircraft industry for weighing airplanes since the time when the company first started to build four-engine bombers and found that no scales then available were suitable for the job.

The engineers designed a scale and several were built from the design by a scale manufacturer. Three separate scales are used to weigh a B-17. Two are placed under the wings near the point at which they join the fuselage and the third just ahead of the rear landing wheel.

**Center of Gravity**—In the case of well-engineered airplanes, such as the B-17, the engineers are not so interested in actual weight as whether the center of gravity falls within a certain prescribed limit. Every 100th Flying Fortress that rolls off the assembly line is weighed with meticulous care.

Burger Anderson, Boeing's weights unit chief, said the center of gravity of the Fortress falls approximately one-third back from the leading edge of the main wing. When a plane is loaded for flight this point may shift forward or backward a prescribed distance without interfering with flight stability. These limits are determined, of course, when the airplane is designed and loading arrangements are planned that will not throw the center of gravity past these limits in either direction.

**Load Shift Essential**—"This ability to shift is most essential," Anderson explained. "If an airplane would fly safely only when the center of gravity was at a fixed point, you would have to land the ship with a pair of scales to maintain this point, and no one could move about inside a plane in flight without disturbing this center."

This range in shift is not great, however, and it is for this reason that Anderson says, that the airplane's heavy loads—such as bombs and fuel—are made at as near the center of gravity as possible.

**Preparation Important**—Actual weighing of a Fortress is not difficult, Anderson says, but the preparation is one of the most important parts of the task. All the equipment has not been installed when the weighing is done.







## The **LIGHT PLANE**, too, has an **AMPHIBIOUS** future



Here's a Taylorcraft on experimental Amphibious Floats that work well on both land and water.

A non-retractable bow skid, proportioned to create hydrodynamic lift when in contact with the water, takes the place of the retractable bow wheel used on larger models. The only retractable parts are the main wheels, cable operated by a direct acting hand lever ... fast acting, and like the bow skid, simple in arrangement, serving its weight, cost and maintenance.

This light plane Amphibious Float development was undertaken as a commercial program

just prior to the war. Ultimate production was temporarily postponed for the duration, but the first year was thoroughly tested under A.A.F. orders. The year then served the important function as a prototype for the highly successful L-1A and C-47 Amphibious Floats which followed it.

EDO AIRCRAFT CORPORATION, 411 SECOND STREET, COLLEGE POINT, L. I., N. Y.



**EDO**  
**AMPHIBIOUS**  
**FLOATS**  
with retractable wheels

\* **EDO FLOAT GEARS** \*

SERVE THE UNITED NATIONS

## Good Market for Personal Planes Seen in Alaska in Post-War Era

New passenger and cargo aircraft also to be needed to supply demands of air-enthusiastic inhabitants, CAA official says

**SEATTLE**—American aircraft manufacturers can count on Alaska as a good market for post-war personal airplanes as well as new passenger and cargo planes.

A survey of existing equipment throughout Alaska and the experience among the territory's 18,000 inhabitants of tremendous enthusiasm for flying gives this indication.

**Wide Open Territory**—The territory is even more "wide open" for the sale of helicopters, particularly a small helicopter of family fly-about design.

"All you seem to hear about up here is 'helicopters'! There isn't a person in Alaska, including natives, who doesn't want one, or a light plane," says Marshall C. Hopson, eighth region manager for the Civil Aeronautics Administration, with headquarters at Anchorage.

**Bush Pilot Lines**—This interest is the result of nearly two decades of steadily growing "bush pilot" service throughout Alaska.

The advent of Seattle-Alaska civilian service by Pan American Airways, and increasing dependence on the airplane for passenger and cargo transportation in a vast region of few and short highways, with the exception of the new Alcan Highway, and one railroad that extends from Seattle through Anchorage to Fairbanks.

Recently the success of military airmail operations throughout the Alaskan interior and along the coast has stimulated the desire of Alaska's populace for improved air service.

**Principal Cities**—Today Alaska is served commercially by approximately 21 "bush pilot" operations and small airline groups, in addition to Pan American and Alaska Star Airlines, the latter owning 34 airplanes of various makes and possessing routes to all principal Alaskan cities and villages with several offices at Anchorage. Approximately 14 airplanes are owned and operated by commercial concerns other than Alaska Star and Pan American.

**Planes Obsolete**—With few exceptions, the airplanes operating throughout Alaska are obsolescent, although kept in good repair and

up to CAA safety standards, which are enforced rigidly. Many are ten years old and owners are confronted with increasing problems of maintenance and repair, due to inability to obtain new parts.

Several operators have expressed a desire to obtain modern equipment and during the past year would have bought multi-engine cargo-passenger transports with the expectation of having them pay for themselves within twelve months, had the planes been available.

**Airports Developed**—Extensive development of CAA airports throughout the territory, together with the installation of a closely spotted network of CAA radio ranges is increasing the safety of flying operations and reducing the risk of heavy investments that would be required for modern airplanes.

Alaska bush operators enjoy a moderate air passenger business

## NAA Exposition

A four-day convention of airport managers, base operators, flight instructors, dealers and county and city officials will conclude with the first annual Northwest Aviation Exposition being held at Minneapolis Auditorium Mar. 19 to Apr. 1.

Models of present and proposed planes will be displayed by the Twin Cities chapter of the National Aeronautics Association, exposition sponsors. Gov. Edward J. Thye has proclaimed the period "Minnesota Aviation Week" in tribute to the exposition.

throughout the year, heavy seasonal business in the transportation of miners and fishermen, and in some areas a constantly heavy cargo business. One small operator recently had a backlog of 38 tons of freight stored in his hangar awaiting air delivery.

**Equipment**—An Alaskan authority on northern flying operations believes the ideal equipment for post-war rehabilitation of the territory's air services will be lead and float type planes, single or



**Alaska's Growing Airways**—To many outsiders, Alaska has been overlooked as a territory of extensive air transport operations that has 5,500 miles of CAA airways, including more than 48 radio range stations and 26 CAA air fields. This map of the routes of Alaska Star Airlines shows how Alaska airways. To them should be added CAA airways from Anchorage to Maryland, the Yukon border, and from New to Fairbanks. Military airways, that undoubtedly will have extensive commercial use after the war, are not indicated.



two-engine, capable of carrying six persons and up to 600 pounds of freight, and convertible to all-cargo service to carry up to 2,000 pounds of freight.

Expansion of CAA facilities in Alaska and efforts of CAA inspectors in persuading pilots to obtain instrument rating will be factors in the post-war growth of air transport operations in the northland. Photos concede that year-round flying is practiced and enhanced by the fact that no Alaskan landing fields exceed 2,500 feet in altitude.

## British Ship Firms Plan Own Airlines

Most of companies studying post-war possibilities of coordinated service.

British shipping men, apparently not entirely satisfied with the monopoly their government has in British Overseas Airways Corp., have done their own air transport grouping against the time equipment will be available for private operation.

Individually, most of the companies, 23 of which have started planning for air operation, are keeping their arrangements to themselves. Five groups have been organized with post-war air transport in mind. They are designated North Atlantic, South American, South and East Africa, Russia, and Coastal and Continental. British Latin American Airlines, Ltd., has been formed separately by the South American group, and another company is in the offing with the Coastal and Continental group.

Shipowners Interested — The Chamber of Shipping of the United Kingdom has expressed its active interest in air transport questions, stressing the shipowners' claims to participation. Sir Lancelot Sloggett, shipping executive who presided at the Chamber, commented that only limited governmental regulation should bear on this development. He expects the North Atlantic Eastern and African groups to form air transport companies soon.

Those who have been watching these British developments doubt that all the 32 British shipping

companies which announced they might operate airlines actually will engage in air transport along with their shipping activities. In some cases, the move was merely as a precautionary one against possible post-war restrictions.

At any rate, the recent activity of British shipping people is a reflection, observers say, of British interest in the possibilities of post-war shipping-air transport coordination.

## Aerial Survey Made Of Hudson Bay Area

RCAF maps thousands of islands never before listed, more than 100,000 sq. mi. covered.

An aerial survey of the Hudson Bay and Hudson Straits area, made last summer by the Royal Canadian Air Force, has shown that even the latest maps of the area were inaccurate.

Covering vital wartime areas at the top of the continent, the survey was made to establish ground

★ NUMBER 4 IN A SERIES, TRACING FIFTY YEARS OF KELLETT ROTARY WING PROGRESS ★



In Department of Agriculture areas, Dutch sea frame steamer, a Kellett demonstrated its ability to cut towing times to less than 2% of conventional ground towing for light.

## Pioneering New Air Freedom

HERE at Kellett, engineers with pioneering minds have been developing and manufacturing rotary wing aircraft for almost 50 years. Year by year they have been acquiring scientific and in-the-air experience.

Much of this progress has been in cooperation with the research and engineering development experts of the United States Army Air Forces, and during the war, Kellett production is, of course, concentrated on military needs.

But Kellett's expanding corps of engineers looks toward continuously to peace, when current society

will accomplish what may combine in the carrying of cost and saving of time in a wide field of usefulness, from forest fire-fighting to transport, and from the usual speed-advance requirements of war.

For instance — In handling electric lines, or oil pipe lines, in ranching and agriculture — wherever it is necessary for aircraft to take off or land in just a few feet — where ability to fly close to ground or rooftop is essential — and where ranges of speed from practically 0 MPH to 175 MPH are necessary — Kellett Aircraft Corporation, Upper Merion (Philadelphia), Pennsylvania.



A flight of military-type Kellett rotary wing aircraft. They can land on a flat roof, flooded ground or deep grass with virtually a turn of the wheels.



## NWA STARTS FLIGHT CONTROL INSTRUCTION

Northwest Airlines is training all flight control officers for the 23 Army flight control centers in the United States, an assignment from Army Air Forces. At a meeting in NWA's St. Paul headquarters where the program was planned were (left to right): Maj. C. F. Burton, chief of operations, Flight Control Division, Office of Flying Safety, Headquarters Army Air Forces, Washington-Saleen, N. C.; Capt. Col. G. K.

Hartline, commanding officer of AAF Seventh Flight Control Region, Seattle; Capt. Col. R. J. Moore, chief of Flight Control Division, Winston-Saleen, N. C.; L. Smith, NWA operations manager, in charge of the training program; Maj. M. V. Frodenhaugh, executive of flight control divisions, Winston-Saleen, and R. E. Strohm, NWA systems chief, flight superintendent, who will direct all instruction.

# KELLETT

OLDEST ROTARY WING AIRCRAFT MANUFACTURING COMPANY

AVIATION NEWS • March 6, 1946

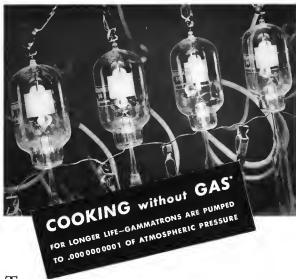
AVIATION NEWS • March 6, 1946

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These Gammatron tubes are being submitted to an exhaust process so severe that only tubes made with tantalum elements can withstand it. They are "cooking" at 3,000° F., running at this temperature from 30 to 40 minutes. At the same time they are being pumped to create a vacuum equal to one ten-billionth of atmospheric pressure... the best commercial vacuum obtainable.

Heintz and Kaufman Ltd. has perfected such a rigorous pumping process to protect Gammatron tubes from filament bombardment. If many gas molecules remain in an evacuated tube, electrons traveling from the filament to the plate strike these molecules and ionize them. These ions, being positive, dart toward the filament, hitting with such force they strip the filament

of its coating. This action, termed filament bombardment, materially shortens the life of a tube.

The severity of the Heintz and Kaufman exhausting process assures superior protection against filament bombardment, and thus adds to the operating life of all Gammatrons.

*(\*Practically, but not precisely true. Even at .0000000001 of atmospheric pressure, there are three billion gas molecules in the cubic centimeter of evacuated space.)*

**HEINTZ AND KAUFMAN LTD.**  
SOUTH SAN FRANCISCO • CALIFORNIA, U. S. A.

*Gammatron Tubes*

FOR VICTORY AND SECURITY BUY WAR BONDS

rates, or the average citizen may fly his own plane, are maintenance requirements, hangar facilities, runway traffic control, communication facilities and the airport and landing strip location and surrounding pattern.

**►Electricians**—He forecasts a great need for improved electronic apparatus so that instrument flights may operate at the same efficiency as contact flights.

Whitmer presented his views in an address before the North Texas section of the American Society of Mechanical Engineers at Dallas.

## Congress Approves Synthetic Gas Bill

Veers \$50,000,000 for establishment of plans to develop process for extracting fuel from coal, shale, fern products, etc.

By BLAINE STUBBLEFIELD

The House and Senate passed legislation authorizing construction of laboratories to develop synthetic liquid fuel processes.

At least three demonstration plants will be built, with appropriations of not more than \$50,000,000 to be called for after the authorization bill is signed.

**►May Top Nazi Quality**—Petroleum authorities in the Interior Dept. said there is no special problem about making high octane aviation fuel synthetically. They said that if we knew the Germans' data and processes on synthetic liquid fuel we would not need the demonstration plants. But having the plants, we probably will produce better fuel than the Nazis did.

The new fuel program, which was proposed in the House by Jennings Randolph and in the Senate by Joseph C. McChesney, is intended to assure against possible exhaustion of fuel in case the war drags on.

**►The Exposed Discovery Rate**—Petroleum is now being consumed three times as fast as new reserves are discovered. Perfection of fuel synthesis from natural gas, coal, shale, fern products and other sources will insure adequate fuel supplies for one or two thousand years, depending on use.

Most of the 46 states have coal or gas and many of them are angling for the demonstration plants. Interior Dept. officials say the plants will be located safely on basis of technical advantages.

## Non-Stop Service To Foynes Opened

Export reports completion of 15 trans-Atlantic flights in succession.

American Export Airlines, whose trans-Atlantic operation has developed from two flights a week to that every day, reports completion of a "new service" of 15 consecutive non-stop crossings over its route from New York to Foynes, Ireland.

Trans North Atlantic flights, which despite a few delays they said would never be possible, were made in American Export's Sikorsky VS-44-A's, a high wing monoplane flying boat designed to cruise with full passenger, crew and mail load. For daylight operation, this ship can carry 40 passengers, 3,900 miles with a 200 mph cruising speed.

**►5,000-Mile Range**—Under special fuel and load conditions, its maximum non-stop range is over 6,000 miles. The line ordered its first Sikorsky flying boats for non-stop operation in 1937.

American Export claims a world's record of 78 hours for the run from New York to Ireland, Africa, South America, and back to New York. It attributes to Charles F. Blair, Jr., its chief pilot, the shortest to trans-Atlantic crossing by a commercial airline, from New York to Foynes. Blair flew 2,450 miles at an average over-water speed of 340 mph, making the trip in 14 hours, 10 minutes.

**►Longest Commercial Flight**—Blair also set what American says was the longest flight for commercial operation—from Foynes to New York—of 25 hours and 53 minutes. Handwritten records for the long time lapse.

Blair added Blair's plane carried 18 passengers, mail and cargo. Five other flights have been in the air more than 20 hours, American Export says.

In referring to the speed of its Sikorsky's, the company acknowledged that barriers have been broken across the ocean at much less time, but points out that this was under conditions of maximum fuel and little or no pay load, while the conditions involved with commercial airlines.

"In most instances," American Export says, commercial airlines fly for twice the length of time and over a greater distance, under more trying conditions."



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PRECISION PARTS  
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Adeco offers you a dependable source of supply with the know-how, experience and complete facilities for all types of close-tolerance production. It will pay you to include Adeco fabrication in your post-war plans.

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"Your Partners in Production"





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materials and methods for processing and cleaning on a scientific basis... speed... certainty... economy... the right material for every operation.

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## Clarence B. Coombs, Pioneer Pilot, Dies

Stunned as flyer in 1909, held numerous records and awards.

Clarence B. Coombs, pioneer pilot and holder of many records and awards died last week at the age of 35 after a brief illness in New York where recently he has been acting as consultant for the New York State regional office of the War Manpower Commission. He started his aviation career as a pilot in 1909 and later turned to the engineering branch of the industry. His flying record of 30,746 hours included establishment of six world altitude marks for multi-engine planes in 1919, 1920 and 1921; winning the New York to Toronto race in 1918, in which he established a speed record of 139.3 miles an hour, winning the Pulitzer Cup race in 1922 and the Statue of Liberty race in 1921.

✦ **First Pilot—Coombs** served in the aviation section of the U. S. Signal Corps and became a test pilot and qualified also as a flight instructor, master signal electrician and aviation mechanic. He had with him the Schenectady airport in 1929 and was operations and general manager of International and Canadian Airways, Ltd. from 1928 to 1931, and from 1931 to 1935 served in a similar capacity for International Airways, Inc.

Coombs was honored by the Aero Club with the Valentine trophy, the Bowman and Canadian Flying trophies and was a member of the Royal Aeronautical Club at the University of California, Cornell and Massachusetts Institute of Technology.

## WTS Men to Choose AAF Assignments

Although the Army Air Forces have announced that men formerly employed in the CAA-War Training Service program will be allowed to choose assignments in the AAF, CAA-WTS officials say there are few openings in flying jobs they can fill and their assignments will be mostly in the technical and mechanical fields.

More than 4,000 men were affected by the recent Army cancellation of the CAA-WTS aviator program.

✦ **Schools Closed**—The final instructor schools at Brooks Field and Randolph Field, Texas, have

been closed to WTS-trained men. AAF instructions will be sufficient for the replacement training program the Army now plans, the Department said.

CAA-WTS graduates will be given a selection of three categories if they are properly qualified. They may volunteer for aviation cadet training, glider training, or technical training the War Dept. said.

✦ **Other Courses**—Glider-instructors released from the program may take aviator cadet training or pilot assignments with the Air Transport command.

## U. S. Air Policy Studied by C. of C.

Airport problem is one of topics expected to be covered.

Domestic air policy is being studied by the Transportation and Communications Department Committee of the United States Chamber of Commerce. The Committee has not yet decided what problems will be dealt with, but one or more airports will be studied. One matter almost certain to be covered is the nation's airport program.

Of particular interest to the Committee is the relationship of food base operations, both commercial and charter, to aviation air transport. Some members believe food base expansion will be extensive under the impetus of new demand for such service and of skilled airman coming home from war. Food base service might develop strong competition against the airlines.

✦ **Control Undecided**—Some members of the Committee are undecided which control should be put upon participation of civilians in aviation. It is clear, they say, that civilians strongly oppose prohibiting laws, but just what they wish to do will be able to do in the air is not known—probably not even to the civilian themselves.

There is much difference between the need of the steamship operators and that of the railroads for auxiliary air services, in the opinion of some Chamber transport men. The ship lines, they say, do not want to and their expensive luxury liners, they would prefer to put their upper deck trade on airplanes and commercialize their ships on ships and militarily use the ships as auxiliaries.

✦ **Superstudies**—On the other hand the railroads plan intensive development of their supertrains, most of which, contrary to some popular

opinion, turn a profit. The latter's Chairman Cummings' formula for allocating the joint costs of freight and passenger rail transportation, in the opinion of some Chamber traffic experts, stands in the way of such a development. But the committee leaders, however, as yet, and some of its members feel that the time is not ripe for a discussion on the rail-air question.

The Chamber's International Transport Committee made a report on U. S. Foreign Air Policy last October and still thinks it was a good job.

## Warner Sees Gains In Aviation Aids

War there is still long road ahead, CAAV vice chairman tells Chicago U. meteorology class.

Progress has been made in the science of meteorology, but there is a long road ahead, in the judgment of Vice-Chairman Edward Warner, of the Civil Aviation Administration Board, before the field of its full possibilities is developed.

Warner sees this progress continuing in two related channels, the first a continuing accumulation of scientific aviation, the second improvement in descriptive technique and the mechanics of transmitting, correlating and interpreting the data thus obtained. His views were outlined in an address to the Institute of Meteorology graduating class at the University of Chicago.

✦ **Political Forecasts**—Political and technical problems both will attend forecasting as it relates to international air routes, he told the group.

The political problems are not essentially new, and meteorological organizations have typically set the world an exceptional example of international cooperation for many years past, but the end of the war will present the need for cooperation as an unprecedented scale.

He credited the assistance of the United Nations and dispersion of American forces with having created "a meteorological observing and communication network of unprecedented completeness."

✦ **Responsibility**—But, Warner told the graduating class, "it is the responsibility of meteorology to lead the nations of keeping the trail observing net intact in peace, with as little disturbance of its operations by international boundary and as high a degree of technical

competence as at present." And there must be international cooperation to that end.

The CAAV member enumerated several phases where improvements in meteorological studies would be welcome, not the least of them in the prediction of sailing and viability at airports. Here he lauded the radio-sonde as "the greatest addition to the resources of meteorological observation since the invention of the first continuously recording instrument."

✦ **Sea Out to Coastlines**—Now, he said, about 6 percent of scheduled flights are canceled, over a year's time, with interrupted sailing and usually conditions at destination responsible for more than two-thirds of the cancellations. Yet, in most than half the cases where flights were canceled, sailing conditions at arrival ports would have permitted safe landing.

## Standard Oil Plans Air Filling Stations

India, Inc., organized to form world chain of service units.

Ground-work for a world chain of aviation "service stations" has been laid by Standard Oil Co. of New Jersey and Sococo-Vacuum Oil Co., Inc. through formation of India, Inc.

The new corporation, which

## New Flying Hazard

Vice-Chairman Edward P. Warner, of the Civil Aviation Administration Board, is not unmindful of future possibilities of private flying. In impressing a Chicago University class in meteorology with the importance of adequate forecasts, he looked ahead to say that the "greatest potential threat to safety in an airplane equipped by hundreds of thousands of aircraft" would come from the inexperienced pilot who "has centered but weather conditions and kept an uncertain of location, a menace to other aircraft."

"It is a reasonable hope for the future," he said, "that the entire nation will be as closely served with meteorological information as is now so pilot any excuse for getting into such a situation or for starting a trip without reasonable assurance of being able to complete it in satisfactory weather."

taken its name from International Aviation Associates has been organized with a capitalization of \$100,000 to serve pilots at any foreign base where private operation is permitted. The sailing company was created eight years ago to coordinate the work of aviation suppliers and distributors through their foreign offices and further petroleum products development.

✦ **Others**—Shepard Dudley, Indiana president, also represented International Aviation Associates in this country and later directed supply and distribution of aviation petroleum products for member organizations in other parts of the world. C. H. Basley, vice-president, also was with IAA many years. Other officers and directors are from management of Standard and Sococo-Vacuum.

Anticipating post-war global expansion of regular American air transport service, India plans to offer complete accommodations in foreign countries, except where there are government monopolies.

## Feeder Lines Urged To Aid RCAF Vets

Head of Aeronautical Institute of Canada says program in providing power jobs for them.

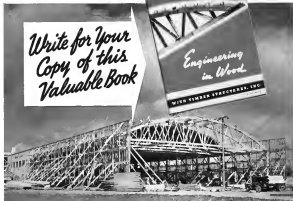
Expansion of aerial feeder lines and lightplane flying rather than long-range air service will be the key to providing employment to thousands of Canadians now in the Royal Canadian Air Force with post-war aviation employment, in the opinion of C. K. Patterson, president of the Aeronautical Institute of Canada.

He pointed out in a recent address to the Toronto that the future of Canadian aviation could be assured by "pump-priming" about \$20,000,000 into airport construction which would provide 400 more trained men and women with small but adequate airport facilities.

✦ **32 Cities Have Airports**—According to latest figures only 32 of 360 communities with a population of more than 1,000 have airports. Of this total, 75 are expected to have commercial facilities shortly after the war.

"The natural trend in airplane design and development," Patterson said, "is toward shorter and faster aircraft resulting in longer flights and elimination of more stop-over points. Feeder lines therefore, offer the only solution. Every new stop means added equipment."





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## Northwest Application Revives Problem of 4th Trans-U. S. Route

CAB hears arguments on airline's request for certificate to operate between Chicago and New York

By MERLIN MICKEL

Consideration by the Civil Aeronautics Board of Northwest Airlines' application for a certificate to operate between Chicago and New York revives the old question of a direct northern (and fourth) transcontinental line and throws a new element into pending negotiations between the United States and Britain on division of post-war international services.

At hearings before a CAB examiner last week on the Northwest application, John A. Wood of the New York Port Authority said the carrier, under Transcontinental and Western Air, American Airlines, Colonial, Penn-Central, United, Chicago and Southern, Braniff and Northeastern, which dropped out. These parties are interested in applications for route extensions which would be offered by the northwest proposal: Milwaukee, Detroit, and the Port of New York Authority intervened.

Protest—Charles A. Rheinstein, vice-president of American Airlines, protested that if a northern transcontinental line is necessary, one of the present services between Chicago and New York should be extended to the northwest, rather than extend Northwest Airlines northwest, thus creating another Chicago-New York operation.

Other parties to the consolidated hearing, of which Northwest was the complainant, were Transcontinental and Western Air, American Airlines, Colonial, Penn-Central, United, Chicago and Southern, Braniff and Northeastern, which dropped out. These parties are interested in applications for route extensions which would be offered by the northwest proposal: Milwaukee, Detroit, and the Port of New York Authority intervened.

Boeing Field, officially King County Airport, by production testing and delivery operations of Boeing Aircraft Co. will permit the arrival of United Air Lines, Northwest Airlines, and Pan American Airways operations to the new airport as soon as runways are completed, according to Paul Morris, Seventh District manager for Civil Aeronautics Administration.

## Seattle-Tacoma Port Nearly Ready

Commercial operations expected to be shifted to new field by July 1.

Shift of all commercial airline operations from Seattle's Boeing Field to the new five-million-dollar Seattle-Tacoma Airport may be ordered before July 1.

Completion of airport runways and temporary airline quarters by June 15 is anticipated. The new airport, 13 miles south of Seattle and 17 north of Tacoma, and adjacent to the Seattle-Tacoma highway, will be the largest on the West Coast and one of the largest in the nation.

Runways—It will open with a north runway of 4,100 feet, a 5,000-foot northwest runway, a 5,600-foot northeast runway, and a 5,000-foot west runway. Eleven hundred acres to serve the airport will permit later installation of parallel runways and extension of primary runways up to 9,100 feet. Intense congestion of Seattle's

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Col. W. C. Rickford, general manager of the Port of Seattle, says present plans call for erection at an early date of a \$700,000 airport terminal building of advanced design.

## U. S.-Canada Airmail Begun 25 Years Ago

It was just 25 years ago this month—Mar. 3, 1919—that the first international airmail flight was made between Canada and the United States when a Boeing model C-3 two-place seaplane carried a single sack of mail containing about 60 letters between Vancouver, B. C., and Seattle, 128 air miles to the south.

Chief of the plane was Eddie Hubbard, a veteran flyer who later was destined to write air mail history. The passenger was W. E. Boeing, founder and at that time president of the Boeing Airplane Co., a fledgling aircraft firm which had taken root a few years previously during the first World War.

Take-off—The actual takeoff was at one end of Coal Harbor on Ballard Island, near the site of the Vancouver Club. A landing strip was made for gasoline at Edmonds, a small town on the shores of Puget Sound, a few miles north of Seattle. After refueling, the plane took off again, this time to settle finally on the tundra near Lake Umbagog, in the middle of the city of Seattle.

Both Hubbard and Boeing worked on in the then infant aviation industry to make contributions which are now recognized as milestones in the industry.

History—Boeing, as founder of Boeing Airplane Co., can look to the world-wide achievements of the Boeing Flying Fortress and the Boeing Superfortress now on the way, the transcontinental Boeing Comets and the Boeing Stratojets.

Hubbard became the first international air mail pilot assigned to fly a regularly privately contracted route on this continent—that between Seattle and Victoria, B. C. Service was started with a Boeing B-1 seaplane Oct. 15, 1922. It was a time-saving link between America and the Orient, since much of the mail, as Hubbard says, was flown between the transcontinental trains at Seattle and the incoming and outgoing trans-Pacific ships at Victoria. Hubbard successfully flew the route daily for seven years, logging 300,000 miles in his B-1.

Trans-Canada Air Lines has compared 1944 service with those of its first year of operation six years ago with these results: no express volume was nearly 100 times greater; air mail service had more than 60 times as many passengers were carried.







## Truman Praise

THIS lumber Truman Committee report, paying the highest tribute to the aircraft industry and its thousands of subcontractors, finds no current, major flaws in the largest aeronautical production effort the world has ever seen. There could be no greater praise for aircraft executives and workers. It is an encouraging balm for America's ability to build the world's finest commercial planes after the war.

"In any program which is so large there are certain to be some bad situations," the report states. "The Committee has investigated and called attention to some of those in the past. That it will undoubtedly do so in the future should not be allowed to detract from the record of the industry as a whole."

There has been no doubt in the past year of the Committee's sincerity in tracking down all reports and rumors it has received of inefficiency and bungling in the nation's war effort.

It was disappointing, however, that several of the Committee's previous premature reports, so critical of some aspects of the aircraft program, came when they did, while the industry was still in desperate throes of organization to meet tremendous demands.

Companies criticized were aware of their problems before the Committee announced them, and were making earnest efforts to correct their mistakes. However, the public was given the erroneous impression that the Truman Committee discovered all of the "scandals," and therefore that no corrective action whatever had been taken before the reports were released to the press. The result was a serious drop in aircraft workers' morale at the very time it should have been highest.

Yet the industry fought on, and licked the problems which had kept its output below Government schedules. But there is a question as to whether the Truman reports helped much, however.

## Mr. Littlewood and NACA

ELEVATIONS by President Roosevelt of William Littlewood, American Airlines' vice-president in charge of engineering, to membership on the National Advisory Committee for Aeronautics, is deserving recognition for one of the most capable airline executives.

The selection from one of the commercial airlines to the most distinguished aeronautical research group in America is even more a recognition of the role U. S. airlines have played and are expected to perform in the further technical development of aviation.

Mr. Littlewood joins a group well known and highly respected. Dr. Jerome Hunsaker of Massachusetts Institute of Technology is NACA's chairman. Dr. Lyman Briggs of the Bureau of Standards is vice-chairman. Other members are Dr. Charles G. Abbott, Gen. Arnold, William A. M. Burden, Dr. Vannevar Bush, Dr. William F. Durand, Gen. Echols, Admiral Pace, Admiral McCam, Dr. Francis Reichleider of the Weather Bureau, Dr. Edward Warner, Dr. Orville Wright, and Dr. T. P. Wright. Dr. George W. Lewis is the internationally known director of Aeronautical Research. John F. Victory and Edward Chamberlin are secretary and assistant secretary.

The group has an unprecedented task, now and in the future. But there is every reason for confidence in its ability to do it well.

## International Cooperation

FORTUNATELY, all propaganda emanating from England on the subject of post-war international airline cooperation is being scrutinized closely by responsible government and industry officials. It is realized that the first moment we relax our attentiveness we may find ourselves charmed out of demanding rights we should seek when the time arrives for sitting down at the conference table.

The latest unofficial proposal, appearing in an English aviation magazine, is for a world air transport association "to control and operate all civil airlines," with financing from every country in the world on the basis of population, estimated density of routes, and frequency of schedules. Executives would comprise delegates from everywhere. This is the wildest one yet.

Unfortunately, even government officials are divided on the extent of our rightful demands in international flying, chiefly because of some evidence of the President's other post-war ideas for supplying our resources generously to the rest of the world at the expense of U. S. business.

The President, necessarily, will dictate the direction of most early international discussions, but the Congress of the United States will ratify the final plan. An equitable policy of cooperation is essential for post-war aviation. No American denies that. But on the other hand there is no evidence so far in this war—certainly not from our soldiers abroad—that we Americans will be in any more benevolent mood toward our world neighbors than our pre-war business sense of survival dictated.

We hope the British and some of our own government leaders will remember that, no matter how much of a smoke screen is sent up between now and the time of realization.

ROBERT H. WOOD



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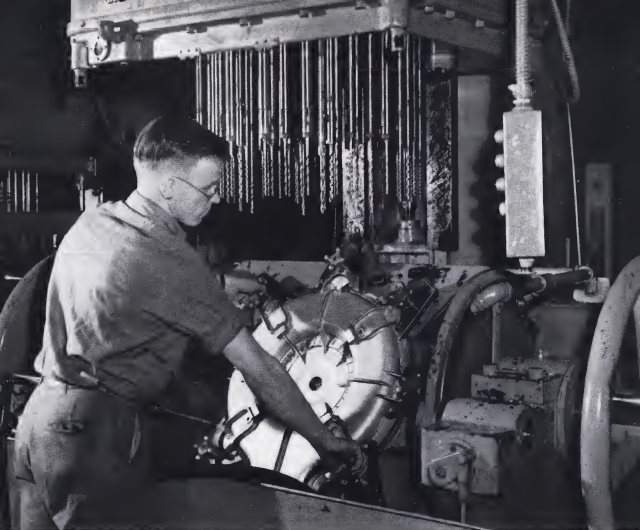
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